IN THE

Supreme Court of the United States.

OCTOBER TERM, 1895.

No. 569.

ROBERT B. DASHIELL,
Appellant,
vs.
JAMES B. M. GROSVENOR ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE FOURTH CIRCUIT.

BRIEF FOR APPELLEES.

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Defendant and Appellant,

vs.

JAMES B. M. GROSVENOR and others,
Complainants and Appellees.

BRIEF FOR APPELLEES.

This cause comes before this Court upon a writ of *certiorari* (381) to the United States Circuit Court of Appeals for the Fourth Circuit to bring before this Court the record and proceedings, upon the appeal to said Circuit Court of Appeals of Robert B. Dashiell from an interlocutory decree entered in the Circuit Court of the United States for the District of Maryland, after a hearing by Hon. T. J. MORRIS, D. J., sitting as Circuit Judge, on the nineteenth day of July, 1894, decreeing in favor of the appellees James B. M. Grosvenor and others, complainants in the original bill, and against the appellant the original defendant, an injunction and an account of profits and damages (365–367).

The suit was brought for infringement of Letters Patent of the United States, issued April 15, 1890, and numbered 425,584, for an Improvement in Breech-Loading Cannon. The patent was issued to Samuel Seabury, Lieutenant in the United States Navy, one of

the complainants, and the other complainants are assignees of certain interests under the patent. The bill of complaint was filed in the Circuit Court for the District of Maryland on July 25, 1892 (1).

The defendant was, when the suit was begun, an Ensign in the United States Navy, and the infringing acts are admitted to have been done under his authority and procurement, and under a contract between himself and the Navy Department, through which he was to be paid a stipulated sum for each gun manufactured, embodying the infringing device. The number of guns so manufactured appears to have been upwards of one hundred, and must now be much greater.

The device covered by the patent in suit is one for the handling of that form of breech block in a breech-loading cannon, known as the interrupted or mutilated screw block, by a single and continuous movement of a lever in performing the three motions of unlocking the breech block, withdrawing it from the gun by a retractor hinged to the breech, and swinging it to one side for opening the breech of the gun, and in performing the same three motions in reverse order for closing the breech again.

Claim 1 of the patent in suit allowed to said Seabury by said Letters Patent No. 425,584, upon which the present claim of infringement is founded, reads as follows:

" 1. The combination, with a breech-loading cannon and a breech block for the same, which is withdrawn in a rearward direction, of a breech-block carrier hinged to the breech, and a breech-block retractor hinged to the breech separate from said carrier, to move independently of said carrier to draw the breech block thereinto and push it therefrom, but capable of moving with said carrier while the breech block is therein, substantially as herein set forth."

Statement of Facts.

During the great and rapid progress which the arts of peace have made in these latter days, a like development has been taking place in the arts of war. The subject of ordnance has had its full share of attention, and the improvements in that direction have been very great.

In comparatively recent years cast-iron muzzle-loading cannon were deemed quite sufficient for all the requirements of modern warfare. They were thought quite good enough for our own Civil War. And although breech-loading artillery is not by any means a modern idea, and examples of its use in crude form some hundreds of years ago are to be found in museums preserved as curiosities, yet it is only within very recent years that its advantages have been realized, and that the efforts of military authorities have been directed toward bringing it into general and practical use.

Thus, if we refer to the Encyclopedia Americana, published in 1834, we find the following under the article "Gun": "Great guns of all sorts, cannons, carronades, &c., whether of iron or brass, are cast in sand and afterwards bored." And, under the article "Cannon": "The interior of the cannon is called the *bore*. The solid piece of metal behind is named the *breech*, and terminates in the *button*."

And, in the Encyclopedia Britannica, in the ninth and last edition, the article on "Gunnery" (Vol. 11), which appears (p. 314) to have been written as late as 1879, speaks of the substitution of wrought iron and steel for the cast iron previously used, and of the recent introduction of rifling, and says: "In spite of the great superiority of the new ordnance, it cannot be said that the old pieces are yet superseded; vast numbers of them exist over all parts of the world, and often form the only defense. Even the fortifications in England are still largely armed with them on land fronts; and, though they are gradually disappearing, they yet claim notice." A discussion at considerable length follows (pp. 313–315) in regard to the comparative merits of muzzle-loading and breech-loading guns, in the course of which it is said (p. 314): "The question of breech-loading or muzzle-loading is obviously not only complicated, but is liable to alteration in its conditions with every advance made in the science of gunnery;" and the discussion concludes thus (p. 315): "Whenever the comparative advantages of breech-loading and muzzle-loading are nearly equal, the decision should be in favor of the muzzle-loaders as possessing the inherent advantages of simplicity, solidity and cheapness."

But it is obvious that the question of the day, in the present state of the art, is not between the comparative merits of breech-loading and muzzle-loading guns, but how to employ the breech-loading system to the best advantage, and to secure the greatest practicable rapidity of fire.

Two Classes of Breech Blocks.

It will appear from the proofs that breech-loading guns divide themselves naturally into two classes: One in which the breech of the gun is closed or stopped by a square or wedge-shaped block, held against the breech by some structure made sufficiently strong, through its connection with the body of the gun, to resist the force of the explosion when the gun is fired, which breech block is withdrawn by a sideward or downward movement, to permit the loading of the gun, and is returned to its place by a reversal of the same movement before the gun is fired. And the other, in which the breech is closed or stopped by what is known as the screw block; being a block provided with an interrupted or mutilated screw, alternate sections of which are cut away, so that, corresponding sections of the receiving screw threads in the breech of the gun being likewise cut away, the block may be freely pushed into or withdrawn from its place, and by a revolution equal to a single section in extent may be turned so that the threads in the block exactly engage with those in the breech, locking the block firmly and safely for firing, or may be turned so as to unlock the block and permit its free withdrawal after firing.

Each of these two classes has its advocates. It is unnecessary to enter here into the controversy as to which presents the greater advantages. But it is not improper to note the fact that while the square or wedge block has been employed in many different forms, and to a very considerable extent, in rapid-fire guns, the Seabury device was the first practicable device for giving the benefit of rapid fire to guns fitted with a cylindrical screw block, and still remains with the modifications designed by its inventor, the only practicable device for that purpose, aside from the infringing device of the defendant. This fact suggests that the wedge block offered a more ready solution of the problem of rapid-fire mechanism. A single direct motion suffices to withdraw that form of block so as to uncover the breech for inserting or removing the charge, and a single direct motion suffices to return the block to the closed position; while the three different and distinct motions essential to the opening and closing of the cylindrical screw block made the problem of devising a mechanism which would cause each motion to be taken up and performed in its order by the single and continuous sweep of a lever a problem of very great difficulty.

The Armstrong device meets this difficulty in part by eliminating the most troublesome one of the three motions—that of the direct withdrawal of the block in the line of the axis of the gun, and its return in the same line. This is accomplished by giving the block a conical form, so that, as soon as it is unlocked by the amount of rotation necessary to disengage the screw threads, it may swing out of the breech, and around to the side, upon the hinge which supports it when open. There is a handle on the block by means of which the rotation is directly affected, and a pull upon it then causes the block to swing out. This is simple and fairly easy to operate, but its effectiveness is obtained by a sacrifice of strength in the substitution of the conical and stepped block for the cylindrical one.

The Canet device also involves—in its practicable form—a conical block, although it does not eliminate one of the three motions by its use, as the Armstrong does. The objectionable features in the Canet device—in its awkwardness of handling, structural weakness and extent of sliding surfaces—are greatly increased, and magnified beyond their limitations for practical use, when the conical block is abandoned and the cylindrical block is taken up.

The True Screw Block.

A little consideration will show that the cylindrical screw block is the only true screw block, and that the departure from the cylindrical form by Armstrong and Canet, in order to get a block of such shape that they could handle it, was a departure from the principle of the true screw block.

The true screw block is nothing more nor less than a screw with equal parts of its threads cut away, fitting into a female screw with equal parts of its threads cut away. Now, the very idea of a screw involves the idea of the cylindrical form. The definition of a screw given by Webster, is: "A *cylinder* of wood or metal, grooved spirally; or a *cylinder* with a spiral channel or thread cut in such a manner that it is equally inclined to the base of the cylinder, throughout the whole length. A screw is male or female. In the male screw the thread rises from the surface of the cylinder; in the female the groove or channel is sunk below the surface to receive the thread of the male screw." It is obvious that the cylindrical form is essential, and that a conical screw is a misnomer, and such expression can only be permitted as a figure of speech.

The slotted screw is an outgrowth or development from the unslotted or continuous screw. The continuous screw is the strongest form possible. The only objection to its use for a breech-block is that it requires a complete revolution of the block for each thread of the screw, whether in inserting or removing the block, thus necessitating ten entire revolutions for a block fitted with ten threads—a performance requiring considerable time, and incompatible with rapidity of fire.

This difficulty was overcome years ago with the discovery that one-half of the threads of the male and female screws might be cut away in alternate sections, so that they might enter one another at the same point they would have reached by the full number of revolutions, save only that through the arc of the last section, and might then be locked or screwed home by simply the revolution through that arc; and with the further discovery that the strength thus sacrificed by cutting away one-half of the threads might be restored by enlarging the dimensions of the block, either by increasing the diameter of the block or by lengthening the block so as to increase the number of screw threads, or by both expedients combined, until such dimensions were reached that the area of the surfaces of the screw threads in contact with one another, or the bearing surfaces, equaled those of the original continuous screw threads.

The cylindrical slotted block is thus the scientific ideal, admitting of any required strength and giving the greatest strength possible, for the same mass of metal in the block and in the breech.

Conical Block a Makeshift.

It is manifest that the conical slotted block is an anomaly and a makeshift. That it is a departure in the direction of weakness is shown by the fact that, as the block becomes more and more conical, we approach and soon reach a shape which cannot be made to take hold of the breech at all. A cone fitted with a continuous screw-thread would not require the same number of turns to release it from a conical cavity fitted with a like continuous screw-thread, because, when turned in the direction of unscrewing, the smaller end of the cone moves into the increasing diameter of the cavity and the screw-threads on the one will soon pass those on the other without further contact.

The conical form is thus inherently weak and objectionable. To offset this weakness it is necessary when such block is used to in-

crease greatly the size of the block and the size of the breech, and this without any gain commensurate with the disadvantage resulting from the sacrifice of the true principle. The increase in size means increase in weight, increase in cost of construction, increase in labor in manipulating, and increase in cost and difficulty of transportation.

We may be sure, then, that the Armstrong and Canet devices adopted the conical block just as others were driven to the wedge and other shaped blocks, not because they were better than, or even as good as, the cylindrical screw block, but because their inventors were unable to conquer the difficulties encountered in adapting the cylindrical screw block to rapid fire.

In comparison with these two, the Armstrong and the Canet, which are the only other practical screw-block devices in the field, we may unhesitatingly say that, independently of the question of priority of inventive conception, *Seabury was the first in the field* with a practicable device for the handling of the *cylindrical* screw-block.

We shall have more to say further on, when we come to consider more in detail the mechanism of the Sauvee or Canet patent as an alleged anticipation.

History of Seabury's Invention.

Lieutenant Seabury entered the Navy at the age of 15 years (87). He graduated from the United States Naval Academy in 1871, and has ever since remained in the service.

Invention was his hobby. When he was a midshipman, in 1867, his first year in the Naval Academy, he got up a design for a gun carriage " in which the gun was to furnish its means of returning to battery by the action of gravity," which was shown to Lieutenant-Commander, since Rear-Admiral, Luce, who expressed his appreciation (73).

After graduating he tried his hand at a gun carriage with breech mechanism of the wedge-block order, which form of block many of the older officers still favored. The drawings of this were completed in 1876, and a model made at the New York Navy Yard in 1878 by Admiral Simpson's orders (73).

In 1879–81, while on cruise on the " Wachusett " on the Pacific coast, he worked out the designs of a vessel and her battery, including carriages for the guns and the application to them of the wedge-

block breech mechanism last mentioned, of his own device—a complete armored ship. These were transmitted to Commodore Simpson, and by him transmitted to the Navy Department, where they are still on file (74). In acknowledging these, Secretary Hunt, then Secretary of the Navy, wrote to Lieutenant Seabury on December 3, 1881, as follows (Complainant's Exhibit A[1]) :

" The department, however, desires to add its commendation of the spirit which prompted you to produce the designs, of the resolution which enabled you to complete them under such disadvantageous circumstances, and of the ability (both original and acquired) which they display. An ambition on the part of any officer to perfect himself in the correlative branches of his profession, while taking care to perform with credit his more legitimate duties, and to give to these extraneous matters only the time which he might otherwise have devoted to his own amusement, is worthy of every encouragement ; and, when the result shows an amount of ability calculated to be of benefit to the service, the combination is sufficiently rare to deserve some special mention. The department will always be glad to foster and develop such tendencies in the officers who possess them " (271).

After this Lieut. Seabury, under orders of the Navy Department, made designs for a flagship for Admiral Temple, which are now on file (75).

Lieut. Seabury's device for the side-acting wedge-block mechanisms were submitted to the Board of Heavy Ordnance and Projectiles, convened in July, 1881, known as the Getty Board. It was referred to in the report of that board, published in 1882, and the report rather settled Lieut. Seabury's ideas in regard to side mechanism, and he dropped it and turned to the screw-block (75).

Lieut. Seabury's attention being thus turned in 1882 to the screw-block, in regard to which he already had some peculiar ideas about the screw threads, he began to study the question of simplifying the movements for handling the screw-block. At that time rapid fire was not known for large guns. At that time the screw-block was handled by the three motions, generally by a lever to turn the block, then to pull out, and then to swing. There was then no device which accomplished these three motions in one movement (76).

He first got the idea of a device which would accomplish this purpose in 1883 (76). The idea was, of being able to open that screw-block by the action of a cam. The idea was to carry a pin from the block, and by a cam slot in a lever to turn the block and pull it

out by opening the lever. He made pencil sketches at the time, similar to Exhibit A[2]. The first pull of the lever was to rotate the block by the action of the cam upon the pin, and the continuation of the pull of the lever was to draw the block out of the gun (77).

At this stage, late in 1883 or early in 1884, Lieut. Seabury was ordered to Admiral Porter's staff for the duty of getting up complete designs for a gunboat under the Admiral's directions (85). This work he did; it involved a great deal of labor, engrossing his time continuously, night and day (86). He finished it in 1885, and being nearly exhausted he spent the few months which elapsed before he went on his next cruise in taking much-needed rest.

This cruise began in November, 1885, and ended in October, 1888. During that time he worked at the idea of the breech-block mechanism (79), but his official duties occupied nearly all his time (79, 94–98), and his facilities for doing any work on shipboard were slight, and he had none for making any working model. Still, before he landed from this cruise, he had made a general plan, drawings which led up to the minor details to get it down to actual working, and these were utilized in getting out the drawings for the Patent Office, accompanying his application for the patent in suit, which was filed July 19, 1889 (98). A comparison of the Exhibit Development Drawing Seabury Sketches, worked out by a professional draughtsman from those sketches, with the models L, M, N, and O, shows the development of Seabury's idea from the first germ, and shows how all are founded upon the same original conception.

Folger Agrees to Try Seabury's Device.

The patent in suit was allowed in October, 1889, and issued April 15, 1890. After the patent was allowed a working model (Exhibit L) was constructed. Early in May, 1890, Lieut. Seabury and Captain J. Wall Wilson visited the Bureau of Ordnance of the Navy, in Washington, and placed the model, with a set of unfinished drawings, before Captain Folger, then chief of that bureau (19), and by virtue of that position ranking as Commodore for the time being.

At this interview "Commodore Folger expressed himself as much interested in the model; seated himself at a table before it, opened and closed it a great many times, and said, as if speaking to himself, 'Yes, this is a very good thing—in many respects superior

to anything we have,' and then after still further examination he rose abruptly and said, 'Well, what will you charge us for this?' Captain Wilson asked him if he meant a lump sum. He replied, 'No; the Government does not do business that way. I mean a royalty.' We explained to him that his question was rather sudden —that we were not prepared to answer it. Whereupon he told us to talk it over together and let him know what we would agree to take. * * * We agreed to take the amount the department had agreed to pay the Driggs-Schroeder Company for the use of their block (a wedge-block) or their system. Commodore Folger thought that this sum was about $250 per gun, and verified his belief by the books of the bureau, which were brought by Ensign Alger, now Professor." The $250 for a four-inch gun was the basis of the understanding with Folger, and *pro rata* for larger guns (19–20).

Commodore Folger then said: "Our fences are all up and in good condition; we have a good mechanism now—the Driggs-Schroeder, which will be tried shortly. I will hold this mechanism as an alternative for trial in case of the failure of the Driggs-Schroeder." After further conversation relating to a new gas check, also devised by Seabury, and in response to their further efforts to get a trial of the Seabury mechanism for a four-inch gun without waiting for the test of the Driggs-Schroeder, Commodore Folger finally said, pointing to the unfinished drawings of the Seabury breech mechanism for a four-inch gun: "Well, I will tell you what I will do. I will try this mechanism anyway. Complete these drawings and send me blue prints of them." And then, turning to the drawing of the gas check, added: "There is no reason why we should not try this at once. Make me drawings embodying the six-inch gun with your mechanism, &c., and send them on" (20).

At this time Lieut. Seabury was stationed at New York. After this interview he returned to New York, and as soon as possible finished the drawings of the four-inch gun, and submitted blue prints of them to Commodore Folger about June 3, 1890 (21). Seabury then went on to make the six-inch drawings, including the design for gas check, and when completed they were mailed to the bureau, July 5, 1890 (22).

Contrivance of Dashiell's Device.

In September, 1890, Seabury wrote to Commodore Folger in regard to the drawings, and received the following reply, signed

by Commodore Folger as Chief of Bureau: "The Bureau has received the plans and description of your breech mechanism for a 6" B. L. R., and has carefully examined them. While recognizing the merits of your design, the Bureau has other designs, developed by its assistants, which it considers superior in some respects, and it has, therefore, concluded not to adopt your design, but to hold it as an alternative plan, and a possible future trial and use" (269).

Commodore Folger testifies that at the time of writing this letter the design of Dashiell was the only other one before the bureau and was what he referred to (57). He goes on to say: "I will tell you now specifically that I may have had in my mind the intention of producing on that young man's mind the idea that I had more than one string to my bow. You understand that in writing letters as people write letters, it is very probable that I may have used the plural designedly at that time, but I specifically had in mind the Dashiell mechanism. Q. You thought you might produce that impression upon Seabury's mind—that you had two strings to your bow, when you only had one? A. Possibly" (57). So, also, the word "assistants" in the letter referred to Dashiell only. "That is used in the same way. I will repeat to you a remark I made a moment ago. Desiring to produce the impression on this young man that I possibly might have more strings to my bow, and in order to close off the commuuication with him more definitely than I would by simply stating it in the singular, I may have worded my letter in that way" (58).

The bureau began work on Dashill's breech mechanism in the fall of 1890. It was for a four-inch gun—the same size shown by Seabury's drawings made at Com. Folger's request and placed on file in the bureau June 5, 1890—and it was designed to employ a metallic cartridge base for a gas check, being the same kind shown by Seabury's design exhibited to Com. Folger in May, 1890, a drawing of which was, at Com. Folger's request, made by Seabury with the drawings of the six-inch gun, and transmitted to the bureau in July, 1890 (90). This work was begun by the bureau just before the letter of September 29, 1890, from Com. Folger to Seabury, which we have quoted above (70).

The bureau went on, and in December, 1892, had completed from fifty to one hundred guns—perhaps more—with the Dashiell mechanism (53). No further explanation or information was accorded to Seabury, although he made efforts to ascertain what was going on. The name of Dashiell first came out in Com. Folger's report of the

Bureau of Ordnance at the close of the year 1890 (22). In December, 1890, in reply to Seabury's request, Dashiell wrote that he had orders against letting the plans be seen, but that as soon as he could he would send Seabury a drawing, and that the drawing attached to the report was not intelligible. Nearly a year later, in November, 1891, being still without further light or information and not having received the promised drawing from Dashiell, Seabury wrote to Com. Folger asking for a copy of the Dashiell drawings—not an unreasonable request considering that he had made two complete sets of his own for the bureau at Com. Folger's request—but he got only the curt answer : " I have your note of the 27th instant, and regret to say that it is not the practice of this bureau to furnish blue prints of any of its gun mechanism " (269–270).

Thus it is a conceded fact that Com. Folger, after promising to try Seabury's device, and obtaining his detailed drawings for that avowed purpose, lent his active assistance and influence to Dashiell, to the exclusion of Seabury, and refused to Seabury any definite information as to what was going on. If such a condition of things was due to nothing more than prejudice against the one and favor toward the other, it naturally suggested the existence of contrivance and combination on the part of Folger and Dashiell in getting up and putting into use the device which the Circuit Court held to be an infringement.

Dashiell saw the plans or plates of the Seabury mechanism as published in the weekly publication of the Patent Office, the " Official Gazette," in May or June, 1890 (177). About a week after that he bought a copy of the Seabury patent and studied it, and became so thoroughly familiar with it that he could have made Seabury's mechanism, from his knowledge of it (179). He made a model of his own device in its first form, Exhibit X, which he finished himself one Saturday night in the last part of August, 1890 (181). The next morning he showed this model to Com. Folger (187), and this was the first time he showed Com. Folger anything definite. This was the first form his device took. The principles and details shown in the second model, Exhibit Y, which represents the guns actually made, were arrived at in the first week of September, 1890 (181). At the date of his examination in March, 1893, fifty guns had been completed with the Dashiell mechanism, and about one hundred more were in process of construction.

It was in February, 1892, that Seabury at last succeeded in seeing the Dashiell mechanism in process of construction at the Washington Navy Yard (23) and on March 10, 1892, the complainants' solicitors addressed a communication (271–275) to Hon. Benjamin F. Tracy, then Secretary of the Navy, narrating the foregoing facts, so far as they had been then learned, with the expressed purpose of affording to him "an opportunity to set the matter right without recourse to the courts"; and it was only after it became evident that no relief was to be obtained in that way, that the bill of complaint in the present cause was filed, on July 25, 1892 (1).

The Bill of Complaint.

The bill was a bill for infringement, asking the usual equitable relief of injunction, with an accounting of profits and damages. The defendant answered denying infringement and setting up the special defences authorized by § 4920 of the Revised Statutes in actions for infringement. Upon the issues thus raised full proofs were taken on both sides, and the cause came on for final hearing and was fully heard and argued before Hon. Thomas J. Morris, at Baltimore, in the early summer of 1894.

The Decision of Judge Morris.

The opinion of Judge Morris was filed July 10, 1894 (361). It discusses the Seabury invention and patent, which it sustains, and then goes on to speak of what the defendant did, in the following terms: "He [Dashiell] informed himself of all he could find had been accomplished by others, and procured a copy of Seabury's patent as soon as it was published in the Patent Office Official Gazette. He was encouraged by the chief of the bureau to exert himself to produce a mechanism which should be simpler than Seabury's, and in August or September he had been able to complete a model which met with the approbation of his chief, who ordered it to be tested. * * * After the filing of defendant's application for a patent, his device having been tested and approved, a large number of guns were made by the Ordnance Bureau of the navy, containing his device. These guns were made under an arrangement with defendant that for the use of his device he should receive a royalty of $125 for each gun. * * * It may be said to be substantially admitted by the defendant's expert witnesses that if

Seabury's first claim is not construed narrowly, then the defendant's device must be held to be an infringement. * * * The mechanism is substantially the same as that used by Seabury, although varied in form to render it simpler and more compact. * * * It may well be that the defendant's device is an improvement upon Seabury's which required invention to contrive, and that as an improvement it was patentable; but since it uses the combination of elements contained in Seabury's first claim it must be held to be an invention which is subordinate to Seabury's patent, and therefore, if used without his consent, an infringement" (363-364).

The opinion then goes on to dispose of the two other points which had been urged in defendant's behalf upon the hearing. "Among other defences," says the learned judge, "it is contended that this proceeding is an attempt to enjoin the United States, as it is for the Umted States and in its shops that these guns and breech loading devices are being made. The testimony shows, however, that the manufacture is by authority and direction of the defendant and under a contract with him by which he is to be paid $125 for each gun. So far as he is concerned, he is not acting in this connection as an officer of the navy, but as a patentee. He assumes that his own patent gives him the right and he is authorizing and protecting the agents of the Government in making and using a device which is an infringement of the Seabury patent. The Government cannot itself lawfully use a patented invention without permission of the patentee, and any one who procures such an act to be done, or adopts or accepts its benefits when done is guilty of an infringement" (364-365). "It is also urged that complainants are not entitled to relief because of their charges in the bill imputing bad faith to certain officers of the Ordnance Bureau, and, having failed to sustain these charges by proof, they are not to be allowed to claim relief upon the ground of an infringement unattended with fraudulent acts. I cannot agree with this contention. The complainants having established the validity of the Seabury patent and the fact of infringement by the defendant, they are entitled in a court of equity to be protected by injunction against the continuance of the infringement. It is the right to this relief which gives the complainants their standing in court, and they have it without regard to whether the infringement has been a mistake or in bad faith" (365).

The Decision of the Circuit Court of Appeals.

From the decree for injunction and accounting, which was entered in conformity with this decision, defendant took an appeal to the Circuit Court of Appeals for the Fourth Circuit; and the appeal was heard in November, 1894, before Judges Goff, Simonton and Brawley, and decided in February, 1895, the opinion of the Court being written by the Hon. Nathan Goff, Circuit Judge (373–380).

The decision of the Circuit Court of Appeals did not question the correctness of the conclusions reached by Judge Morris in regard to the validity of the Seabury patent and its infringement by Dashiell. Its opinion and decision that the decree of the Circuit Court should be reversed, and the bill dismissed, went mainly upon the ground that the suit was in effect a suit against the Government, and therefore could not be maintained.

Thus the Circuit Court of Appeals says (376–379):—

"Do not public policy and the rights of the Government in its sovereign capacity require that parties feeling themselves aggrieved on account of matters relating to such transactions as we have alluded to—to such circumstances as are set forth by the evidence taken and filed in this case, should be compelled to seek relief and compensation, if so entitled, by proceeding in another manner and before another tribunal, and that the Courts should not use their writs of injunction so as to retard and embarrass the Goverment in the prosecution of work, the product of which is absolutely essential to the public welfare and the national defence? We think that the consent of the owner of a patented device, while it is desirable and should be obtained, if it conveniently and reasonably can, is not positively necessary, in order to enable the United States to use the invention described in the letters patent, particularly in cases where it relates to the mode of construction of implements of warfare required by the Government and indispensable to the armament of its vessels of war. Such right to take and use the property of the citizen for Government purposes is indisputable, an inborn element of sovereign power essential to the independence and perpetuity of the nation. * * *

"If the invention claimed by complainants is being used and infringed by those so representing the United States, then the owners of the same can recover just compensation for such use and infringement, from the Government, by suit in the Court of Claims, or

by means of an appropriation for that purpose made by Congress, on application made to that body.

"The fifth amendment to the Constitution of the United States contains the provision that private property shall not be taken for public use without just compensation, and this we must consider as an implied assertion that on making such compensation it may be so taken. It will be noted that this is not a restriction of the power to take private property for public use, but that it is a requirement that when such property is so taken just compensation shall be made therefor to ths owner. That incident of sovereignty—the right to take—belonging to every independent government is not disturbed, nor is the manner in which such right is to be exercised, or the mode by which the proper compensation is to be ascertained and paid set forth. And because Congress has provided by statutes a procedure for the condemnation of private property required for public purposes, in certain instances and not in others, we are not therefore to infer that the power to take does not exist as to the other matters, nor should we construe such legislation as a limitation of that power relative to other cases of like character not embraced in such enactments. In other words, the non-user of a power is not to be used to disprove its existence.

"The title the individual citizen has to his property is good as against all other citizens, but it must yield to the necessity of the Government, and submit to the social requirements and rights of the general public—and this right of the Government to protect itself and defend its own is not to be controlled by any other power, nor is it to depend on the consent of any person, company or corporation. The only restriction, as we have already romarked, is the constitutional requirement that just compensation shall be made to the owner for property so taken. The proper mode of proceeding in order to secure compensation for private property so taken for public use without the consent of the owner, and in the absence of legal action for condemnation, has received judicial consideration, the Supreme Court of the United States having at different times plainly indicated the same, particularly in cases where the Government has used an invention without the permission of the owner of the letters patent protecting the same. * * *

"We do not think that contending patentees, striving between themselves and those interested with them, as to the validity of their respective letters patent, should be permitted to close the arsenals, ordnance shops and navy yards of the United States, by injunctions

issuing out of their litigation, thereby frustrating the designs of the Government, rendering inoperative the legislation of Congress germane thereto, and causing great loss of the public funds appropriated by Congress in execution of the same. It is true that the United States is not made a party to this action, but it is also true that it is disclosed by the pleadings and evidence, that the cannon the further making of which it is the object of this suit to enjoin, are now being manufactured at the navy yard of the United States, at Washington, by the employés of that establishment, under the direction of the Chief of Ordnance of the Navy Department; and it is apparent that such an observance of the injunction granted by the court below, as should be shown by those to whom it is directed, and as must necessarily be required by the courts while it is of force and effect, will close said navy yard so far at least as the manufacture of breech-loading cannon is concerned, and thereby prevent the enforcement of certain laws of the United States, the consummation of which is of national importance."

THE PETITION FOR WRIT OF CERTIORARI.

Thereupon the original complainants filed their petition in this Court for a writ of *certiorari* to remove the cause into this Court, and in their petition set forth the following points in which the decision of the Circuit Court of Appeals was believed to be in conflict with the decisions of this Court:—

"I. It was held by this Court in *United States vs. Lee* (106 U. S., 196), that 'while acceding to the general proposition that in no Court can the United States be sued directly by original process as a defendant, there is abundant evidence in the decisions of the Court that the doctrine, if not absolutely limited to cases in which the United States are made defendants by name, is not permitted to interfere with the judicial enforcement of the established rights of plaintiffs when the United States is not a defendant or a necessary party to the suit' (p. 207), and that the prior case of *Carr vs. United States* had decided 'that the United States are not bound by a judgment to which they are not parties and that no officer of the Government can, by defending a suit against private persons, conclude the United States by the judgment' (p. 217).

"II. It was held by this Court in *Osborn vs. Bank of the United States* (9 Wheat., 738), in *Poindexter vs. Greenhow* (114 U. S., 270), and in many other cases, that where an individual is sued in tort

by means of an appropriation for that purpose made by Congress, on application made to that body.

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and sets up in his defense that he acted as an officer or agent of a State or of the Government, the Court is not ousted of jurisdiction, and the defendant to make out his defense must show that his authority was valid and sufficient in law.

"III. It was held by this Court in *United States vs. Burns* (12 Wall., 246), in *Cammeyer vs. Newton* (94 U. S., 225), and in *Langford vs. United States* (101 U. S., 341), that the United States has ordinarily no greater right to use a patent without the consent of the patentee than a private individual has. And in *Cammeyer vs. Newton* it is said: 'Public employment is no defense to the employee for having converted the private property of another to the public use without his consent and without just compensation. Private property, the Constitution provides, shall not be taken for public use without just compensation; and it is clear that that provision is as applicable to the Government as to individuals, except in cases of extreme necessity in time of war and of immediate and impending public danger.'

"IV. The taking of any part of the property of a patentee in the rights conferred by his patent, by the United States, without the consent of the patentee, is an exercise of the power of eminent domain, and may not be done, under the Fifth Amendment of the Constitution, and the decisions of this Court in the cases of *Secombe vs. Railroad Company* (23 Wall., 108), *Kohl vs. United States* (91 U. S., 367), *United States vs. Jones* (109 U. S., 513), and *Cherokee Nation vs. Kansas Railway Co.* (135 U. S., 641), excepting by express legislative authority, and with a 'reasonable, certain and adequate provision for obtaining compensation' before the occupancy of the owner is disturbed. No such legislative authority or provision for compensation appears in the present case.

"V. It was held by this Court, in *Langford vs. United States* (101 U. S., 341), that the United States was not liable to be sued in the Court of Claims for the torts of its officers or agents, or for compensation for property taken without recognition, or in denial of the title of the owners."

The prayer of the petition was granted, the writ of *certiorari* issued and duly returned, and the cause is now before this Court.

POINT FIRST. The Circuit Court had jurisdiction to entertain the suit and to make the decree from which the defendant appealed.

By the Revised Statutes of the United States it is provided: "Sec. 629. The circuit courts shall have original jurisdiction as follows: * * * Ninth. Of all suits at law or in equity arising under the patent or copyright laws of the United States."

This suit was in form the ordinary suit in equity, brought by the owners of a patent, to restrain its infringement, and for an accounting of profits, and damages. The defendant had obtained a patent upon certain features of the infringing device, and the manufacture of that device was proceeding under his authority, and by virtue of a contract for the payment to him of a royalty for its use at the rate of $125 for each gun.

It is manifest that under ordinary circumstances the establishment of these facts would leave no doubt as to the jurisdiction of the circuit court, and its duty to grant relief.

But it is urged in defendant's behalf that he is in some way entitled to immunity from suit and privileged to escape the usual consequences of his tort, because,—although he obtained his patent in his individual capacity, and has employed the rights and privileges assumed to be conferred by it for his individual profit,—the persons who were conducting the infringement under his authority and for his profit, were officers of the navy and were manufacturing the infringing device for the use of the navy. It is claimed that the suit is in fact, although not in name, a suit against the government, and for that reason cannot be maintained, and that the complainants must resort to the court of claims or to Congress for the relief to which they are entitled.

Before going into the argument as to how far such a claim is supported in reason and authority, it will not be amiss to look for a moment at the far-reaching consequences of its establishment, as indicating the gravity of the questions presented.

It has been currently believed that the safeguard of the rights of citizens of this country against encroachments of the government lay in the fact that the officers of the government are not above or beyond the reach of the law. Every arbitrary wrong which can be inflicted on the part of a government must be inflicted through the instrumentality of an agent or officer

of that government. But if the doctrine contended for the defendant is to prevail, then the executive officers of the United States may in time of peace, and without the excuse of any overwhelming necessity, appropriate any property of any citizen to the use of the government, without his consent, without any legislation authorizing the appropriation or any legal proceedings for its condemnation, and without any provision for compensation; the officers making such appropriation in denial of the right and title of the owner being privileged from suit, because of the immunity of the government itself from suit; and not only this, but an individual, devising an infringment of a patent, in his own personal interest and for his own personal profit, may protect himself from suit, and cloak himself with the immunity enjoyed by the government if he can procure the officers of the government to use his infringement with a recognition of his invalid title, and with a denial of the rightful title of the true owner.

This is not an exaggerated statement. The right of the owner of a patent is entitled to the same degree of protection as any other species of property. The right to appropriate to public use is subject to the same restraints and limitations. The same doctrine which shall recognize the right of the government to appropriate a patented invention without the consent of the owner and without compensation, must recognize the right of the government to appropriate in like manner any other species of property belonging to the individual citizen—houses, lands, merchandise, ships, or whatever else may be adapted to the use of the government. Once the right admitted, there is no limitation to the extent of its exercise.

The broad question presented may be stated thus:—

Where a tort is committed against the property of a citizen, as by the infringement of a patent, and the United States derives a benefit through the tort; does the United States become liable for compensation to the party injured; and, are those who have been instrumental, whether in public or private station, in the commission of the tort, protected from personal liability?

Government Cannot Sanction a Tort.

In *Story on Agency*, § 309, it is said that "no authority whatsoever from a superior can furnish to any party a just defense for his own positive torts, or trespasses; for no man can authorize another to do a positive wrong." And again, at § 319, *b*: "But, although

neither the the government nor its superior officers are responsible to third persons for misfeasances, or negligences, or omissions of duty of the subordinates in office, properly or necessarily employed under them, it by no means follows that such subordinates are themselves exempted from all personal responsibility therefor to third persons. On the contrary, the very consideration, that the public superiors are not responsible for the acts and omissions of their subordinates in their official conduct, distinguishes the case from that of mere private agencies, and lets in the doctrine, that, under such circumstances, they should be held personally responsible therefor to third persons, who are injured thereby." And it is further said, in the same work, at § 320: "*A fortiori*, the same rule applies to cases where the subordinate officers of the government are guilty of direct misfeasances or positive wrongs to third persons in the discharge of their official functions; for in such cases, they incur the same personal responsibility, and to the same extent, as private agents. This is founded upon a very plain principle of common sense and eommon justice; and that is, that no person shall shelter himself from personal liability, who does a wrong, under color of, but without any authority, or by an excess of his authority, or by a negligent use or abuse of his authority. Where a person is clothed with authority as a public agent, it cannot be presumed that the government means to justify, or even to excuse, his violations of his own proper duty, under color of that authority."

The doctrine thus clearly expressed by Judge STORY has been repeatedly affirmed by the Courts.

Thus in *Little v. Barreme*, 2 Cranch, 170, a case which seemed one of peculiar hardship to the naval officer who was held personally liable, Chief Justice MARSHALL said: "These orders given by the executive under the construction of the act of Congress by the department to which its execution was assigned, enjoin the seizure of American vessels sailing from a French port. Is the officer who obeys them liable for damages sustained by this misconstruction of the act, or will his order excuse him. * * * I confess the first bias of my mind was very strong in favor of the opinion that though the instructions of the executive could not give a right, yet they might excuse from damages. * * * That implicit obedience which military men usually pay to the orders of their superiors, which indeed is indispensably necessary to every military system, appeared to me strongly to imply the principle that those orders, if not to perform a prohibited act, ought to justify the person whose general

duty it is to obey them, and who is placed by the laws of his country in a situation which in general requires that he should obey them. * * * But I have been convinced that I was mistaken, and I have receded from this first opinion. I acquiesce in that of my brethren, which is, that the instructions cannot change the nature of the transaction, or legalize an act which, without those instructions would have been a plain trespass."

So, likewise, in *Mitchell v. Harmony*, 13 How. 115, Chief-Justice TANEY said: "Upon principle, independent of the weight of judicial decision, it can never be maintained that a military officer can justify himself for doing an unlawful act, by producing the order of his superior."

And in *Bates v. Clark*, 95 U. S. 209, it is said: "Whatever may be the rule in time of war and in the presence of actual hostilities, military officers can no more protect themselves than civilians, in time of peace, by orders emanating from a source which is itself without authority."

In *Cammeyer v. Newton*, 94 U. S. 225, a patented invention was used by the defendants in the employ and for the benefit of the government, in the prosecution of certain public work in New York harbor. In delivering the opinion of this Court, Mr. Justice CLIFFORD said: "Holders of valid letters-patent enjoy, by virtue of the same, the exclusive right and liberty of making and using the invention therein secured, and of vending the same to others to be used, as provided by the act of Congress; and the rule of law is well settled, that an invention so secured is property in the holder of the patent, and that as such the right of the holder is as much entitled to protection as any other property. * * * Public employment is no defence to the employe for having converted the private property of another to the public use with his consent and without just compensation. Private property, the constitution provides, shall not be taken for public use without just compensation; and it is clear that that provision is as applicable to the government as to individuals, except in cases of extreme necessity in time of war and of immediate and impending public danger. Sect. 22 of the patent act provides that every patent shall 'contain a grant to the patentee, his heirs and assigns, for the term of seventeen years, of the exclusive right to make, use and vend the said invention or discovery throughout the United States.' Agents of the public have no more right to take such private property than other individuals under that provision, as it

contains no exception warranting any such invasion of the private right of individuals. Conclusive support to that proposition is found in a recent decision of this court, in which it is held that the government cannot, after the patent is issued, make use of the improvement any more than a private individual, without license of the inventor or making him compensation." The recent decision thus referred to was *United States vs. Burns*, 12 Wall. 246.

Carr vs. United States, 98, U. S., 433, was an appeal from the Circuit Court of the United States for the District of California, from a decree rendered in favor of the United States, upon a bill to quiet title. It was urged in behalf of Carr that the United States were estopped by certain prior judgments in the state courts in actions brought against the agents of the government having possession of the land in question, especially as such agents had been represented in the actions which resulted in such prior judgments by counsel employed and paid by the United States. The court held that these prior judgments did not operate as an estoppel against the United States, and affirmed the principle that the government cannot be sued except by its own consent. It is true that the opinion goes on to discuss the limits within which officers of the government could be subjected to suits; but this is rather with reference to the question how far the determination of such suits would be binding on the government, than with reference to the question whether such suits would lie against such officers individually. We see here, however, the first expression or suggestion of the idea which is more fully developed in the expressions of the same learned justice when he came to write the opinion in *James v. Campbell*.

That case,—*James v. Campbell*, 104 U. S. 356,—was decided upon the question of infringement, the court holding that the complainant's patent was not infringed. The defendant in the circuit court, James, was United States Post Master in the City of New York, and had made use of a stamp which was claimed to infringe the complainant's patent. In considering the attitude of the original defendant, the opinion recognizes in the fullest manner the rights of a patentee as well against the government as against private citizens. It says: "That the government of the United States, when it grants letters patents for a new invention or discovery in the arts, confers upon the patentee an exclusive property in the patented invention, which cannot be appropriated or used by the government itself without just compensation, any more than it can appropriate or use without compensation land which has been patented to a

private purchaser, we have no doubt. * * * Many inventions relate to subjects which can only be properly used by the government, such as explosive shells, rams and submarine batteries to be attached to armed vessels. If it could use such inventions without compensation, the inventors could get no return at all for their discoveries and experiments. It has been the general practice when inventions have been made which are desirable for government use, either for the government to purchase them from the inventors and use them as secrets of the proper department; or if a patent is granted, to pay the patentee a fair compensation for their use. The United States has no such prerogative as that which is claimed by the sovereigns of England, by which it can reserve to itself, either expressly or by implication, a superior dominion and use in that which it grants by letters patent to those who entitle themselves to such grants. The government of the United States, as well as the citizen, is subject to the constitution; and when it grants a patent, the grantee is entitled to it as a matter of right and does not receive it as was originally supposed to be the case in England as a matter of grace and favor." The learned justice who writes the opinion then proceeds to inquire whether the Court of Claims could take jurisdiction of a claim against the United States for the use of an invention, without the consent of the patentee, but expressly refrains from deciding the question. He then goes on to use the following language: "The course adopted in the present case of instituting an action against a public officer who acts only for and in behalf of the government, is open to serious objections. We doubt very much whether such an action can be sustained. It is substantially a suit against the United States itself, which cannot be maintained under the guise of a suit against its officers or agents, except in the manner provided by law. We have heretofore expressed our views on this subject in *Carr vs. United States* (98 U. S. 433), where a judgment in ejectment against a government agent was held to be no estoppel against the government itself." That this language was only a *dictum* is thus clearly acknowledged by the learned justice himself; and that it did not express the views of the court or declare the law as the court understood it is clearly shown in *United States v. Lee*, where the precise question did arise, and its determination was necessary to the decision of the case.

In *United States v. Lee*, 106 U. S. 196, the precise question whether officers of the government were liable to suit for wrongs

done by them on behalf of, or in the interest of the government, or by its assumed authority, arose and was decided. The original plaintiff, Lee, brought an action against Kaufman and others to recover possession of certain land. The United States was not a defendant, but assumed the defense through its proper law officers, while expressly declining to submit itself as a defendant to the jurisdiction of the circuit court. Judgment was rendered for the plaintiff, and a writ of error was taken to this court. The question presented and decided in this Court is best expressed in the language of the opinion: "The counsel for plaintiffs in error and in behalf of the United States, assert the proposition that though it had been ascertained by the verdict of the jury in which no error is found, that the plaintiff has the title to the land in controversy, and that what is set up in behalf of the United States is no title at all, the court can render no judgment in favor of the plaintiff against the defendants in the action, because the latter hold the property as officers and agents of the United States, and it is appropriated to lawful public uses. This proposition rests on the principle that the United States cannot be lawfully sued without its consent in any case, and that no action can be maintained against any individual without such consent, where the judgment must depend on the right of the United States to property held by such persons as officers or agents for the government. The first branch of this proposition is conceded to be the established law of this country and of this court at the present day; the second as a necessary or proper deduction from the first, is denied."

After a careful review of the previous decisions of this Court, from *United States v. Peters*, 5 Cranch 115, and *Meigs v. McClung's Lessee*, 9 Cranch 11, down to *Davis v. Gray*, 16 Wall. 203, the opinion continues as follows: "This examination of the cases in this court establishes clearly this result: that the proposition that when an individual is sued in regard to property which he holds as officer or agent of the United States, his possession cannot be disturbed when that fact is brought to the attention of the court, has been overruled and denied in every case where it has been necessary to decide it. And that in many others where the record shows that the case as tried below actually and clearly presented that defense, it was neither urged by counsel nor considered by the court here, though if it had been a good defense, it would have avoided the necessity of a long inquiry into plaintiff's title, and of other perplexing questions, and have equally disposed of the case. And we see no escape from the

conclusion that, during all this period, the court has held the principle to be unsound, and in the class of cases like the present, represented by *Wilcox vs. Jackson*, *Brown vs. Huger*, and *Grisar vs. McDowell*, it was not thought necessary to re-examine a proposition so often and so clearly overruled in previous well considered decisions."

The opinion then refers to the language employed in *Carr vs. United States*, to which we have called attention above, and which was the foundation of the similar *dictum* in *James vs. Campbell*, to which we have also adverted, and says that these remarks relied on by counsel as asserting a different doctrine, "must rest for their weight as authority on the high character of the judge who delivered them, and not on that of the court which decided the case", and then adds: "That the United States are not bound by a judgment to which they are not parties, and that no officer of the government can, by defending a suit against private persons, conclude the United States by the judgment, was sufficient to decide that case and *was all that was decided*."

The opinion goes on to say: "Looking at the question upon principle, and apart from the authority of adjudged cases, we think it still clearer that this branch of the defense cannot be maintained. It seems to be opposed to all the principles upon which the rights of the citizen when brought in collision with the acts of the government must be determined. In such cases, there is no safety for the citizen, except in the protection of the judicial tribunal, for rights which have been invaded by the officers of the government professing to act in its name. * * * The defense stands here solely on the absolute immunity from judicial inquiry of every one who asserts authority from the executive branch of the government, however clear it may be made that the executive possessed no such power. Not only no such power is given, but it is absolutely prohibited both to the executive and the legislative to deprive any one of life, liberty, or property without due process of law, or to take private property without just compensation. These provisions for the security of the rights of the citizen stand in the constitution in the same connection and upon the same ground as they regard his liberty and his property. It cannot be denied that both were entitled to be enforced by the judiciary as one of the departments of the government established by that constitution."

Cunningham vs. Macon and Birmingham R. R. Co., 109 U. S., 446, contains the following expressions of the Court: "Another

class of cases is where an individual is sued in tort for some act injurious to another in regard to person or property, to which his defense is that he has acted under the orders of the government. In these cases he is not sued as or because he is the officer of the government, but as an individual, and the court is not ousted of jurisdiction because he asserts authority as such officer. To make out his defense, he must show that his authority was sufficient in law to protect him. * * * To this class belongs also the recent case of *United States vs. Lee*, 106 U. S., 196, for the action of ejectment in that case is in its essential character an action of trespass, with the power of the court to restore the possession to the plaintiff as part of the judgment. And the defendants, Strong and Kaufman, being sued individually as trespassers set up their authority as officers of the United States, which this court held to be unlawful, and therefore insufficient as a defense. The judgment in that case did not conclude the United States, as the opinion carefully stated, but held the officers liable as unauthorized trespassers, and turned them out of their unlawful possession."

In *Hollister v. Benedict Mfg. Co.*, 113 U. S. 59, suit had been brought in the Circuit Court against an officer of the government for infringement of a patent, and it was urged in his defense that the acts complained of had been done by him in the discharge of his official duties. But this court, while it held the patent invalid, took pains to reaffirm the doctrine of *James v. Campbell* that the right of a patentee under letters patent for an invention, granted by the United States, is exclusive of the government of the United States as well as of all others, and stands "on the footing of all other property the right to which was secured, as against the government, by the constitutional guaranty which prohibits the taking of private property for public use without compensation."

In *Poindexter v. Greenhow*, 114 U. S. 270, the opinion of the Court quotes the language of Chief Justice MARSHALL in *Osborn v. Bank of the United States*, 9 Wheat. 738, as follows: "The objection is that as the real party cannot be brought before the Court, a suit cannot be sustained against the agents of that party; and cases have been cited to show that the court of chancery will not make a decree unless all who are substantially interested be made parties to the suit. This is certainly true where it is in the power of the plaintiff to make them parties; but if the person who is the real principal, the person who is the true source of the mischief, by whose power and for whose advantage it is done, be himself above the law,

being exempt from all judicial process, it would be subversive of the best established principles to say that the laws could not afford the same remedies against the agent employed in doing the wrong, which they would afford against him could his principal be joined in the suit." The opinion then adds: "This language, it may be observed, was quoted with approval in *United States v. Lee.* The principle which it enunciates constitutes the very foundation upon which the decision in that case rested. * * * Both government and state are subject to the supremacy of the Constitution of the United States and of the laws made in pursuance thereof. So that while it is true in respect to the government of a state as was said in *Langford v. United States* (101 U. S. 341) that the maxim that the King can do no wrong has no place in our system of government; yet it is also true in respect to the state itself that whatever wrong is attempted in its name is imputable to its government and not to the state, for as it can speak and act only by law, whatever it does say and do must be lawful. That which therefore is unlawful because made so by the supreme law, the Constitution of the United States, is not the word or deed of the State but is the mere wrong and trespass of those individual persons who falsely speak and act in its name. * * * How else can these principles of individual liberty and right be maintained, if, when violated, the judicial tribunals are forbidden to visit penalties upon individual offenders who are the instruments of wrong, whenever they interpose the shield of the State? The doctrine is not to be tolerated. The whole frame and scheme of the political institutions of this country, state and federal, protest against it. Their continued existence is not compatible with it. It is the doctrine of absolutism, pure, simple and naked; and of communism, which is its twin; the double progeny of the same evil birth."

The doctrine thus emphatically declared in *United States v. Lee* to have prevailed from the very establishment of the government, and thus emphatically reaffirmed and enforced in *Poindexter v. Greenhow,* has continued in full force and vigor down to the present time, and has repeatedly been cited with approval in the later decisions of this Court.

The claim that such a suit is in effect a suit against the government and therefore cannot be maintained "has been overruled and denied in every case where it has been necessary to decide it."

But, were the question a new one to-day, the courts would be compelled to the same position. The long line of decisions in this

Court do not rest merely upon the precedent set by the first case which arose; they rest upon solid reason, upon the conviction that such doctrine is essential to the preservation of the rights and liberties of the citizen, as guaranteed by the Constitution. For how could those rights and liberties be preserved if their violation gave the injured party no title to relief? If the United States cannot be sued for the torts of its officers and agents, although it profits thereby, and if such officers and agents cannot be sued because their torts have been committed in the interest of the United States and the United States is interested to receive the benefit of such torts, and a suit against such officers and agents is virtually a suit against the United States, then it is manifest that the only protection of the rights of the citizen must be sought in the benevolence and amiability of those by whom public affairs are administered.

No such possibilities for the exercise of arbitrary and irresponsible power were ever intended by the framers of our system of government to be entrusted to any officer of that government, however high or however low in station. On the contrary, the adoption of the original Constitution was followed almost immediately by the adoption of the Fifth Amendment, which declared in express terms that no person shall be deprived of life, liberty or property, without due process of law, and that private property shall not be taken for public use without just compensation.

Jurisdiction of the Court of Claims.

These considerations gain, if it were possible, added force from the conclusion which has now been authoritatively reached, that suit will not lie in the Court of Claims where the property of the individual has been taken in denial of his title.

In *Langford v. United States*, 101 U. S. 341, the action was brought in the Court of Claims to recover for the use and occupation of certain lands and buildings, which had been seized by the agent of the United States against the will of the claimant. The Court said: "Conceding that the title, or even the right to the possession of the premises was in claimant, it would seem that the facts above stated show that the act of the United States in taking and holding that possession was an unequivocal tort, if the government can be capable of committing one, and that if the case were between individuals, every implication of a contract would be repelled." And, after discussing the jurisdiction of the Court of Claims in cases where

private property was taken with a recognition of the rights of the owner, the Court continued : " It is a very different matter where the government claims that it is dealing with its own and recognizes no title superior to its own. In such case, the government, or the officers who seize such property, are guilty of a tort if it be, in fact, private property. No implied contract to pay can arise any more than in the case of such a transaction between individuals." It was therefore held that the Court of Claims had no jurisdiction, because its jurisdiction was limited to cases of contract, express or implied.

United States v. Palmer, 128 U. S. 262, arose out of the use by the government of a patented invention with the consent of the patentee. The Court said : " No tort was committed or claimed to have been committed. * * * We think that an implied contract for compensation fairly arose under the license to use, and the actual use, little or much, that ensued thereon. The objection therefore that this is an action for tort falls to the ground. It is objected that an action cannot be brought in the Court of Claims on a patent, the Circuit Court having exclusive jurisdiction of this subject. But whilst that objection may be available as to actions for the infringement of a patent in which its validity may be put in issue and in which the peculiar defences authorized by the patent laws in Rev. Stat. Sec. 4920 may be set up, it is not valid as against actions founded on contracts for the use of patent inventions."

In the Court of Claims itself it has been held in numerous cases, and among others in *Schillinger's Case*, 24 C. Cl. Rep. 278 ; *Gill's Case*, 25 C. Cl. Rep. 415 ; *Berdan's Case*, 26 C. Cl. Rep. 48 ; and *Kirk's Case*, 28 C. Cl. Rep. 41, that that court has no jurisdiction to entertain a suit against the United States, where the use by the government of a patented invention is in the nature of an infringement.

The decision in the *Schillinger Case* was affirmed by this Court in *Schillinger v. United States*, 155 U. S. 163, where, after citing the statutes conferring jurisdiction on the Court of Claims, it is said : " Under neither of these statutes had or has the Court of Claims any jurisdiction of claims against the government for mere torts ; some element of contractual liability must lie at the foundation of every action. In *Gibbons v. United States*, 8 Wall. 269, 275, it was said : 'The language of the statutes which confer jurisdiction upon the Court of Claim, excludes by the strongest implication demands against the government founded on torts. The general principle which we have already stated, forbids, on a policy imposed by neces-

sity, that they should hold themselves liable for unauthorized wrongs inflicted by their officers on the citizen, though occurring while engaged in the discharge of official duties.' "

And, in affirming the decision in *Berdan's Case*, in *United States v. Berdan Fire Arms Co.*, 156 U. S. 552, it was said: "Even if there were findings sufficient to show that the government had in any manner infringed upon this patent, there is nothing disclosing a contract, express or implied, and a mere infringement, which is only a tort, creates no cause of action cognizable in the Court of Claims."

Right of Eminent Domain.

It remains to notice the claim that this infringement, being in the interest and for the benefit of the government, may be justified as an exercise of the power of eminent domain.

It would seem a sufficient answer to any such claim, that it has been repeatedly held, as we have already shown, that the taking of the property of an individual, whether land, patented invention, or other species of property, in denial of the title of the owner, is a tort, and only a tort, and no obligation of the government arises thereon.

When it is said the government possesses the power of eminent domain, as an attribute of sovereignty, it is not meant that the government is invested with an arbitrary power, under which its officers and agents may lay hold of any property which may be deemed useful to the government without regard to the rights of the owners. The government is vested with all needful powers to construct, equip and maintain fleets and forts and provide for the public defence. But these powers are not vague and indefinite, but are conferred by special statute; and it is contemplated that it will pay for whatever it needs for these purposes, and appropriations of public monies are duly made by the national legislature to that end. It is needless to say that no statute can be found which purports to authorize the acquisition of property for such purpose in defiance of the title of the owner, leaving the owner to such redress as he may or may not obtain through the bounty of Congress.

The right of eminent domain has never been construed to invest the executive officers of the government with arbitrary power. The safeguards surrounding its exercise are no less beneficial and effective to protect the rights of citizens than

those attending the exercise of the other powers of the government. And it is abundantly well settled that its exercise must be accompanied by securing adequate and just payment to the owner of the property taken.

In *Bloodgood v. Railroad Co.* 80 Wend. 17, Chancellor WALWORTH said: "I hold that before the legislature can authorize the agents of the State and others to enter upon and occupy or destroy or materially injure the private property of an individual, except in the case of actual necessity which shall not admit of any delay, an adequate and certain remedy must be provided whereby the owner of such property may *compel* the payment of his damages or compensation; and that he is not bound to trust to the justice of the government to make provision for such compensation by future legislation."

In *People vs. Hayden*, 6 Hill, 361, Chief-Justice NELSON said: "Although it may not be necessary within the constitutional provision that the amount of compensation shall be actually ascertained and paid before property is thus taken, it is, I apprehend, the settled doctrine, even as repects the State itself, that at least certain and ample provision must be first made by law, (except in case of public emergency), so that the owner can *coerce* payment through the judicial tribunals, or otherwise, without any unnecessary delay. Otherwise the law making the appropriation is no better than blank paper."

In *Sage vs. City of Brooklyn*, 89 N. Y. 195, it is said by ANDREWS, Ch. J., "It is so axiomatic that it is laid up as one of the principles of government that a provision for compensation is an indispensable attendant upon the due and constitutional exercise of the power of depriving an individual of his property under the right of eminent domain."

In *Matter of United States*, 96 N. Y. 237, it is said: "The fundamental doctrine, of course, is that private property cannot be taken for public purposes without just compensation. But this need not be given in all cases concurrently in point of time with the actual exercise of the right of eminent domain. It is enough if an adequate and certain remedy is provided whereby the owner of such property may *compel* payment of his damages. This means reasonable, legal certainty."

In *Boston & Lowell R. R. vs. Salem & Lowell R. R.*, 2 Gray 36, Chief Justice SHAW, speaking of taking property under the right of eminent domain, says: "The characteristics of such an act of ap-

propriation are known and well understood. It must appear that the government intended to exercise this high sovereign right by clear and express terms or by necessary implication, leaving no doubt or uncertainty respecting such intent. It must also appear by the act that they recognized the right of private property and mean to respect it; and under our Constitution the act conferring the power must be accompanied by just and constitutional provisions for full compensation to be made to the owner. If the government authorizes the taking of property for any use other than a public one or fails to make provision for a compensation the act is simply void; no right of taking as against the owner is conferred; and he has the same rights and remedies against a person acting under such authority as if it had not existed.

In *Thatcher vs. Dartmouth Bridge Co.*, 18 Pick. 502, it is said by the same learned judge that the intent to exercise this "high sovereign power" must clearly appear in the act itself and will not be presumed.

The same rules are recognized and affirmed in the following decisions of this Court:

Garrison vs. City of New York, 21 Wall. 203: "The State in virtue of her right of eminent domain had authorized the city to take his property for a public purpose upon making to him just compensation. All that the constitution or justice required was that a just compensation should be made to him and his property would then be taken whether or not he assented to the measure."

Secombe vs. Railroad Co., 23 Wall. 180: "It is no longer an open question in this country that the mode of exercising the right of eminent domain, in the absence of any provision in the organic law prescribing a contrary course, is within the discretion of the legislature. There is no limitation upon the power of legislation in this respect if the purpose be a public one *and just compensation be paid or tendered* to the owner for the property taken."

In *Kohl vs. United States*, 91 U. S. 367, Congress had passed certain acts authorizing the acquisition of property for a government building in the City of Cincinnati. Under the assumed authority of this act the government had instituted a proceeding in the Circuit Court of the United States for condemnation of the property. The chief question presented was that of the jurisdiction of the Circuit Court to entertain the proceedings, and this question was decided in favor of the jurisdiction on the ground that such proceedings were in effect a suit. The whole of the decision recognizes

the necessity of formal legislative authority, and the *judicial* natur of the proceedings required to secure due compensation.

United States vs. Jones, 109 U. S. 513: In this case it is said: "The power to take private property for public uses, generally termed the right of eminent domain, belongs to every independent government. It is an incident of sovereignty and, as said in *Boon vs. Patterson*, (98 U. S. 106,) requires no constitutional recognition. The provision found in the Fifth amendment to the Federal Constitution and in the constitutions of the several States for just compensation for property taken is merely a *limitation* upon the use of the power. It is no part of the power itself but a *condition* upon which the power may be exercised. * * * The proceeding for the ascertainment of the value of property and the consequent compensation to be made is merely an inquisition to establish the particular fact as a preliminary to the actual taking; and it may be prosecuted before commissioners or special boards, or the courts, with or without the intervention of a jury, as the legislative power may designate. All that is required is that it shall be conducted in some fair and just manner with opportunity to the owners of property to present evidence as to its value and to be heard thereon."

Cherokee Nation vs. Kansas Railway Co., 135 U. S. 641. "The Constitution declares that private property shall not be taken 'for public use without just compensation.' It does not provide or require that compensation shall be actually paid in advance of the occupancy of the land to be taken. But the owner is entitled to reasonable, certain and adequate provision for obtaining compensation before his occupancy is disturbed. Whether a particular provision be sufficient to secure the compensation to which, under the Constitution, he is entitled is sometimes a question of difficulty. In the present case the requirements of the Constitution have in our judgment been fully met. The third section provides that before the railway shall be constructed through any lands proposed to be taken, full compensation shall be made to the owner for all property to be taken or damage done by reason of the construction of the road. In the event of an appeal from the finding of the referees, the company is required to pay into court double the amount of the award, to abide its judgment; and that being done the company may enter upon the property sought to be condemned and proceed with the construction of its road. We are of opinion that this pro-

vision is sufficiently reasonable, certain and adequate, to secure the just compensation to which the owner is entitled."

The only situation in which these requirements may be disregarded arises in the case of such urgent necessity as will justify the application of the maxim, *publica salus summa lex.*

The necessity which authorizes an appropriation or destruction of property, either by officers of the State or by private individuals, without express authority of law and without provision for compensation, must be an overwhelming necessity which does not admit of the delay incident to the exercise of the power of eminent domain. Such a necessity is not found in the deliberate and orderly preparation for possible war, which is always in progress to a greater or less extent in time of peace.

The distinction is well stated in *American Print Works vs. Lawrence*, 23 N. J. Law, 590, where it is said: "The common law doctrine of necessity is one that is now too firmly established to be drawn in question and yet, perhaps necessarily from its very character, it seems somewhat undefined as to its application and extent. * * * Its exercise must depend upon the nature and degree of necessity that calls the right into action and which cannot be determined until the necessity is made to appear. The necessity must be immediate, imperative and, in some cases, extreme and overwhelming. Mere expediency or utility will not suffice. The doctrine seems to arrange itself under different modes to which some different rules will be applicable. The conservation of life is one of the occasions which will call it into exercise, and the necessity for self preservation is one of the marked and striking instances. * * * Again there is a necessity arising out of the act of God or of strangers, as of public enemies; and in regard to this it is said one man may justify committing a private injury for public good. Instances are thus put in an old authority. In time of war a man may justify making fortifications on another's land and without license; also a man may justify pulling down a house on fire for the safety of the neighboring houses; for these are cases of the common weal. The ground on which this necessity rests, it is seen, is placed in the principle, not of mere individual necessity, but of public good. * * * That branch of the doctrine to which I now refer is, of course, to be distinguished from that mere appropriation for public utility under a state necessity, which comes within the doctrine of the eminent domain. They are both spoken of sometimes as granted on neces-

sity and they doubtless are so. But the latter stands *strongly distinguished* from that urgent necessity which, for immediate preservation, imperatively demands immediate action."

So likewise in *Bowditch vs. Boston*, 101 U. S. 16, it is said: "In these cases the common law adopts the principle of natural law and finds the right and the justification in the same imperative necessity."

Thus it is clear that the infringement of the complainants' patent is in no manner justified by the fact that the benefit of that infringement enured in whole or in part to the government of the United States, and that the person devising the infringement and sanctioning it by his license to the government is in no manner protected by that fact from the consequences of his tort, any more than if he had employed the agency of private manufacturers. And when we consider that the defendant acted in his private and individual capacity in devising the infringement, with full knowledge of the complainants' patent, and turned his action to his private and individual benefit and profit by procuring and reserving to himself a royalty for the use of the infringing device, and that, unless the complainants can maintain this suit, they will be without redress, it is manifest that the suit was properly brought, and that the Circuit Court had jurisdiction to entertain it, to determine the fact of infringement, and to grant the usual relief in such cases, which was awarded by its decree.

POINT SECOND. There is nothing in the objection that the bill alleged fraud and that fraud must be estabilised to maintain the suit.

The bill is in the usual form of bills for the infringement of a patent, seeking the equitable relief of injunction to restrain further infringement with the incidental relief of an accounting of profits and damages.

It is true that the bill alleges a fraudulent combination for the purpose of carrying out the infringement. But that allegation cannot have the effect of transforming a bill for infringement into a bill for relief under a totally distinct head of equity, on the ground of fraud.

Sec. 4919 of the Revised Statutes provides that when in any action for damages for the infringement of a patent a verdict is rendered for the plaintiff, " the court may enter judgment thereon for any sum above the amount found by the verdict as the actual damages sustained, according to the circumstances of the case, not exceeding three times the amount of such verdict, together with the costs."

Sec. 4920 of the Revised Statutes likewise provides that in equitable suits for infringement " the complainant shall be entitled to recover, in addition to the profits to be accounted for by the defendant, the damages the complainant has sustained thereby; and the court shall assess the same or cause the same to be assessed under its direction. And the court shall have the same power to increase such damages, in its discretion, as is given to increase the damages found by verdicts in actions in the nature of actions of trespass upon the case."

It has been repeatedly held that the discretion thus given to the Court was intended to meet cases of wanton and wilful infringement. *Merchant v. Lewis*, 1 Bard, 172; *Brodie v. Ophir Silver Mining Co.*, 4 Fisher, 137; *Seymour v. McCormick*, 16 How., 480. It was exercised in *Russell v. Place*, 9 Blatch., 173, on the ground that the infringement was deliberate and intentional; in *Peek v. Frame*, 9 Blatch., 194, because the defendants' conduct was " peculiarly aggravated "; and in *Lyon v. Donaldson*, 34 Fed., 789, for flagrant violation of complainant's rights.

An infringement is a tort. The essential foundation for relief in a suit for infringement lies in the wrongdoing of the defendant. And while the patent is constructive notice to all the world, the nature of the wrong done by the infringer and the severity with which it is to be judged are affected by the fact of his actual knowledge, and the intent which the law presumes as to the necessary consequences of his acts. The intent to injure or not to injure is to be considered in aggravation or in mitigation of the damages to which the wrongdoing exposes him. *Hogg v. Emerson*, 11 How, 587.

Character of the Bill.

Certainly, then, it was entirely appropriate that a bill in equity for infringement of the complainants' patent, should aver those circumstances connected with the act of infringement which characterized the conduct of the defendant and had a direct influence upon the extent of the relief to which complainants might be entitled.

"In order to enable the court to understand the case, and to administer the proper remedial justice, as well as to apprise the opposite party of the nature of the claim, and of the redress asked, and to enable him to make the proper defence thereto, it would seem indispensable that the bill should contain a clear and exact statement of all the material facts. It should, therefore, show, with reasonable certainty, the rights of the plaintiff; the manner, in which he is injured; the person, by whom it is done; the material circumstances of the time, place, manner, and other incidents." *Story's Equity Pleadings*, § 23. And, again: "Every material fact, to which the plaintiff means to offer evidence, ought to be distinctly stated in the premises; for otherwise he will not be permitted to offer or require any evidence of such fact." *Idem*, § 28.

Now, so far is the addition of such an allegation from taking away the distinctive character of the bill, that it was formerly deemed unsafe to omit from any bill the allegation of a fraudulent combination, and it still may be inserted in any bill. By rule 21 of the Equity Rules the plaintiff may at his option insert or omit "the part which is usually called the cammon confederacy clause of the bill, averring a confederacy between the defendants to injure or *defraud* the plaintiff." The allegation here is nothing more than amplification of that clause.

From these considerations it is apparent that the allegations of fraudulent combination and conspiracy contained in the bill could not operate to deprive it of its ordinary character as a bill for infringement, which it bore upon its face.

If these allegations needed any further justification, it would be abundantly found in the evidence that defendant's infringement was designed and deliberate, and that he can protect himself against such charge only by declaring his ignorance of the law, in respect to the rights which complainant's patent conferred, and the necessary effect of his own acts in derogation of those rights.

Justification of the Allegation.

The defendant does not make any question of his full knowledge of the patent in suit, and that such knowledge was attained by him very shortly after the issue of the patent. He saw the patent mentioned in the current issue of the "Official Gazette" of the Patent

Office, which contained some description of it; and he forthwith procured from the Patent Office a copy of the patent and carefully studied it.

Therefore, he was fully apprised not only of the nature and particulars of the Seabury invention, but also of the fact that the broad claim of the inventor had been fully allowed.

Reading and studying this patent as Dashiell says he did, he could not have failed to be apprised by its terms that his alleged device would be a direct infringement of it, if, at that time, he had any clear idea of his so-called device in his own mind. He could not have failed to read and to understand that claim one of the patent allowed to Seabury:

"The combination with a breech-loading cannon and a breech block for the same, which is withdrawn in a rearward direction, of a breech-block carrier hinged to the breech, and a breech-block retractor hinged to the breech separate from said carrier, to move independently of said carrier, to draw the breech block thereinto, and push it therefrom, but capable of moving with said carrier, while the breech block is therein, substantially as herein set forth."

If, therefore, Dashiell had at that time any clear idea in his own mind of the device which he has put to actual use, and which is represented by model Y, it must have occurred to him at once that, by reason of the language of this claim, his own device could not be used as a whole without infringing this claim, and that all which was open to him to patent was one or more of the details of different parts which could only be used as possible improvements upon, and in subordination to, the Seabury invention.

Now, it is noticeable that Dashiell does not claim to have had any clear idea of his own mechanism in his mind at the time when he first became informed of the Seabury patent. To be sure, he says he first thought of turning the plug and pulling it out in the summer or fall of 1889 (180). But this was easy; and Com. Folger says that there was a universal desire to accomplish this with the screw block. The difficulty was in devising means to return the block to the breech. And so Dashiell says the whole construction, as shown by model X, gradually formed itself in his mind with the aid of rough sketches, which he never kept for more than a day, "until at last" he felt sure it would work (181). He says that he delayed somewhat the making of a model of this design X, and finished it himself upon a Saturday night in the last part of August, 1890.

But model X was not the design which was adopted and put to practical use. That design is now shown by model Y. The substitution of the design shown by Y for that shown by X came about in the following way: Design X was to produce a mechanism applicable to existing guns with right-handed screw threads. Design Y was to produce a mechanism which could be used with cartridge cases or fixed ammunition (188). When model X was shown to Com. Folger, he was pleased with it and asked Dashiell to make working drawings of it, remarking, "I would like to have you get up a gun like that." And at the same time when model X was shown to Com. Folger he asked Dashiell if Dashiell could put an extractor on it (191). It was after this, Dashiell says, that he conceived in part the design Y; and he adds that "the abandonment of the cam groove of model X for method of engaging a tooth of a rack in the breech block of model Y were new and came to my mind while I was getting out the drawings for a gun according to model Y;" and that he did not regard design X as satisfactory (189).

Design Y was perfected in Dashiell's mind in the first ten days of September, 1890 (189); and the cartridge *base* was employed in firing the gun with this mechanism in the summer of 1892 (196).

Bearing in mind, now, these statements and admissions of Dashiell himself, and his further admission that the only novelty in his own design was contained in the continuous pull of the bell-crank lever, as he terms it, upon the plug, while the unlocking motion is going on, and the engaging of the right-hand vertical tooth of the rack with a longitudinal groove through the threads of the breech block (199–200), and bearing in mind as well the claims made by him in his application and allowed in his own patent (358–361), it is apparent that Dashiell's eyes were fully open to the fact that he had no right to patent or to use any such completed mechanism as is described in his patent or shown by model Y.

The similarity in all essentials of the two devices can leave little doubt that Dashiell was aided in working out his own design by the features shown in the Seabury patent. He tells us that on examining Seabury's patent, he condemned Seabury's device in his own mind as altogether too complicated, and stigmatizes it as "clockwork," which latter phrase is, curiously enough, the same one which Com. Folger used in his testimony to discredit Seabury's invention. Dashiell also tells us that, on examining Seabury's gun at Sandy Hook, he found the same defects in its actual working which his

study of the patent convinced him would be found. Thus he endeavors to justify himself in making use of Seabury's ideas by the pretense that, as formulated by Seabury, they were of no practical value, ignoring the fact established by the testimony of several witnesses, that the gun, as actually made, worked with perfect satisfaction, and that the only difficulty in its operation arose from the defective manufacture of the cartridge bases which were used in it for gas checks, and ignoring the fact that the model of the same Seabury device, Exhibit L, from the time when it was shown to Com. Folger in 1889 down to the present time, has worked uniformly well, and demonstrates the entire practicability of the invention.

Now, under these circumstances, is it enough to acquit the defendant from willful infringement upon the Seabury design and the patent in suit that he makes formal disclaimer of any such intention?

Three months before Dashiell worked out his first form, as shown in model X, Seabury had visited Com. Folger, and had exhibited to him the model L and the drawings showing the application of that device to a four-inch navy gun. Com. Folger had expressed his satisfaction and pleasure with the working of the model, and had said that it was, in some particulars, better than anything which the Bureau had before it. He neither mentioned nor had in mind in that remark any other design than that of the Driggs-Schroeder, which was a falling block and not a screw block and had never been tried on a gun of as large a bore as four inches. He agreed to try the Seabury device and to put it on a four-inch gun, if Seabury would finish and supply him with the drawings, and he went so far as to make a bargain with Seabury as to the royalty which the Bureau or the Department would pay for the use of that device upon guns for the navy.

Within a month, the drawings were completed and on file in the Bureau, and all this while and during the following month in which the six-inch drawings were likewise completed and put on file at Com. Folger's request, not a word is heard of Dashiell or of any invention of Dashiell.

Meanwhile what was Dashiell doing? Carefully studying the Seabury invention and so familiarizing himself with it that he could have made the mechanism from his own knowledge of it; and letting his ideas gradually clarify themselves until they finally took such shape that they are in all substantial elements identical with

those of Seabury, and only differ in the two trifling details which, according to his own assertion, are the only particulars original with himself; finally reaching by this process a device so devoid of original invention on his part, that his own experts have been obliged to admit that that device was an infringement, if the claim of the patent in suit is to be interpreted in the broad sense and according to the natural meaning of its language.

Again; Com. Folger and Dashiell both take pains to say that Seabury's drawings were not exhibited to Dashiell nor alluded to in the talks between them; and yet Dashiell admits that the adoption of the device Y arose from Com. Folger's suggestions to him about an extractor and about the use of fixed ammunition or cartridge base, both of which had been features, and new features for so large a gun, in Seabury's four-inch drawings.

In his eagerness to justify his own course, Com. Folger, throughout his whole testimony, is unable to conceal his hostility to Seabury and his constant effort to aid Dashiell.

Thus, after avowing his gratification that Dashiell had kept himself clear so as to secure a patent and a claim for royalty upon the department, he adds: "I will tell you one thing which may be of interest to you. Mr. Seabury has taken out a great many patents and has several times been offered duty in the Bureau of Ordnance. He has always declined it. If some other device had come before me, as Chief of Bureau, my sympathetic consideration would be with the other, naturally, if the merits of the other device at all made such a decision justifiable, on account of Mr. Seabury never having been willing to work in the Bureau of Ordnance" (54). But upon being pressed he is forced to admit that he knew nothing whatever of Seabury's ever having been offered or having declined duty in the Bureau of Ordnance; the utmost that occurred within his knowledge having been that when Seabury showed him the model L in May, 1890, Com. Folger said, "You *ought to have been* attached to this bureau" (55); while Seabury himself positively testifies (83) that he was never offered a position in the Bureau of Ordnance by Com. Folger or any one else, either directly or indirectly.

Another circumstance is significant. Dashiell testified, as we have already seen (197), that the first thing definite which he ever showed to Com. Folger, was the model X which he showed him on the morning of the last Sunday in August, 1890, having himself finished it late the previous night. This model is in evidence. But Com. Folger testifies that in the spring or early summer of 1890 he

received the first definite evidence that Dashiell had accomplished something in the way of a design of a breech mechanism for a slotted screw block, from a model which Dashiell then brought him, and which he at once took to the Secretary of the Navy (44). This model, he says, was of four or five inches in exterior dimensions, having a bore of an inch and a half; it was made of metal and wood; and it was a completed thing when he took it up to the Secretary on that day. An inspection of model X, finished at the end of August, 1890, will show that it cannot be the one described by Folger, which he says he took to the Secretary on the same day when he first saw it, for it is a much smaller model, and made of metal only.

Now, this discrepancy indicates one of two things: Either there was another model on a larger scale, made of metal and wood, which Dashiell first showed to Com. Folger and which was exhibited to the Secretary of the Navy, but has not been produced here, in which case the testimony of Dashiell that model X was the first is untrue, and the prior model has for some season been suppressed; or else Folger's testimony in this regard is, to say the least, recklessly inaccurate.

Folger went on to manufacture the Dashiell device as soon as his bureau could make the necessary working drawings from Dashiell's rough sketches. This he did knowing of Seabury's patent, and with the most wanton disregard of Seabury's rights. He says he took no advice as to whether the making of the Dashiell mechanism would be an infringement of the Seabury patent, but went right ahead and made it, and did not trouble himself about questions of infringement. "If there is an infringement, there is a recourse to the Court of Claims to settle it" (64). Yet he says, just before (63), that it is possible he thought of the question a good many times, and Dashiell says that, in August, 1889, when he first showed his device to Com. Folger, the latter said, "You have taken care that this does not interfere in any way with Seabury's invention?" (177). Fletcher also says (41) that the question came up in the Bureau "Whether Dashiell's was an infringement on the Seabury mechanism," in respect to which Fletcher gave his opinion that they were so near together that there was a question; but Com. Folger expressed his determination, "relative to the Dashiell versus the Seabury mechanism," that he would use the Dashiell.

Thus, the question of infringement was distinctly presented long after Seabury's patent was issued, and long before it could be known whether Dashiell would get any patent at all. The resources of the

bureau were used to get Dashiell's device into working shape, and Fletcher saw the draughtsman there working upon drawings of that device which he understood were for the Patent Office (40).

And, not only this, but in 1890, before the bureau actually began work on the mechanism, Com. Folger proposed the idea of a royalty to Dashiel and to the Secretary of the Navy (61). "In order to preserve to himself the right to receive a royalty from the United States" Dashiell showed Com. Folger nothing about his patent claims or his patent drawings prior to his application for a patent (52). In arriving at the amount of royalty to be paid, "the price with Seabury" was taken into account—$250 for each mechanism—and Dashiell's price was to be just one-half of that amount (79). Com. Folger thinks Dashiell learned Seabury's price from him, and does not remember that he (Folger) objected to Seabury's figure in the talk with Seabury (61). The contract between the department and Dashiell for a royalty was made in the latter part of 1890, and was brought about through Com. Folger's interposition (61).

The fact stands out prominently in Folger's testimony that he disregarded the question of infringement upon Seabury's patent, and went on in his course of aiding Dashiell, adopting his mechanism, building guns for Dashiell's mechanism, and procuring for Dashiell a contract with the department giving Dashiell a royalty, and doing all this long before there was any assurance that Dashiell would obtain any patent at all, and without any regard to the scope of Dashiell's patent, if it should be allowed. Com. Folger emphasizes all this in his testimony, and the pains he takes in bringing forward various pretexts to justify his conduct leaves no doubt that he was all along fully conscious that his conduct was unjustifiable. "I advised Dashiell, and *advised the Secretary of the Navy*, in our conversation, to *let it go before the courts* to be settled." "I remember of Dashiell saying to me that he preferred that this thing should go to the Courts and be settled in that way." "My plan in this case was to *urge* the Secretary of the Navy to *let us go on and make the mechanism*, and let the law courts decide the question of infringement; that they would have recourse for their rights, if they had any, to the Court of Claims" (64).

Yet Com. Folger tells us (65) that "the fact of his [Dashiell's] getting a patent *was sufficient to clear the atmosphere for me*, and permit me to go ahead. The United States Patent Office stated that there was an original idea there, *and I went ahead on that.*" This was Com. Folger's voluntary statement, meant to convey the idea

that he had adopted his course under the assumed protection of Dashiell's patent. But the disingenuousness of this statement is immediately laid bare by the succeeding questions and answers (84) which show that he had gone ahead without regard to the allowance of any patent to Dashiell, and that when Dashiell's patent was allowed he did not read a line of it. He is forced to this, because if he admitted that he had read the Dashiell patent, he must also have admitted that the Dashiell patent did not justify his course, inasmuch as it granted Dashiell no right which was not in subordination to the rights granted to Seabury in claim one of the patent in suit. And so he takes refuge in the position that he relied upon the simple fact of Dashiell's obtaining some sort of patent, without regard to its real scope or effect. "That confirmed me in the justice of whatever course I may have taken up to that time, and *I felt that we were out of the woods* so far as there was any trouble on that subject, if I thought of it at all. *That* cleared up the atmosphere. Q. What was that, up to that time, had clouded the atmosphere, and made you feel that you were in the woods? A. *There were a lot of people working on the general subject* of mechanism of the general type of the Dashiell. Q. Who else besides Dashiell? A. *I mean Dashiell and Seabury*" (66).

If Com. Folger and Dashiell were honest in their course, why did they take such pains to hide from Seabury what was going on? If they were animated by a pure desire to obtain the best possible device for the Navy, why was it necessary to keep Seabury in the dark? Why was it necessary to mislead Seabury into thinking that Com. Folger had several "strings to his bow" when he had only one? Why was it necessary to make Seabury think that several of Com. Folger's assistants were "developing" more satisfactory designs than that of Seabury, when no one in the bureau was working upon it except Dashiell, and he was so little an "assistant," in the ordinary meaning of the term, that the use of the word "assistants" was likely and was intended to throw Seabury off the track? Why were Seabury's requests for information refused both by Folger and by Dashiell? Why was it nearly a year and a half before he was able for the first time to discover the character of the mechanism which had taken precedence over his?

It may be that this evidence does not establish contrivance, combination and conspiracy on the part of Folger and Dashiell, as alleged in the bill, but it certainly comes dangerously near it. If anything is lacking, it is the proof of express understanding that

Seabury's ideas were being appropriated; and if the circumstantial evidence had been submitted to a jury and the jury had found upon it the fact of conspiracy, it is not likely that the Court would disturb such a verdict.

The patent in suit, in and by its claim *one*, as allowed, had granted to Seabury broad and comprehensive rights, which the making of any breech mechanism after Dashiell's device, and without Seabury's consent, must *necessarily* infringe. Dashiell cannot even plead ignorance of the fact. He had studied the Seabury patent and had become thoroughly familiar with it. He says himself that he so familiarized himself with the mechanism that he could have constructed it from his knowledge of it. His attention was directly drawn to the question whether his own device was not an infringement, before his device was put in use. If his action under these circumstances did not amount to wilful and positive fraud, it undeniably constituted what is termed fraud in law.

BILL ACCEPTED AND LITIGATED AS BILL FOR INFRINGEMENT.

But, to recur now more directly to the essential character of the bill, and the nature which it was assumed to have, and the issues it was assumed to present and to permit to be litigated, it should be observed that the defendant himself *accepted* the bill as a bill for infringement, and availed himself of the peculiar defenses authorized only by § 4920 of the Revised Statutes in actions for infringement, viz.—that Seabury, the petitioners' patentee, was not the original inventor or discover of the thing patented; and that the invention had been both patented, and described in printed publications, prior to Seabury's supposed invention; and that the same had been in public use or on sale in this country for more than two years before Seabury's application for a patent; not only setting up these defenses in his answer (Record, pp. 19–22,) but also proving *under notice, as he was permitted to do solely because the suit was one for infringement*—under the provisions of said § 4920—the alleged anticipating British patent issued to Thorsten Nordenfeld, which was not mentioned in the answer, but was defendant's chief reliance upon the trial.

Furthermore, the question of the validity of the petitioners' patent was exhaustively litigated upon the trial. Three or four witnesses were examined as patent experts on behalf of the defendant. A large number of patents of the United States and of foreign coun-

tries were put in evidence in defendant's behalf. By far the greater part—indeed, almost all—of the proofs on both sides were addressed to the patent questions involved. In fact, the case was treated and tried throughout as a suit for infringement.

It would not seem just that the defendant should thus be permitted to *accept* the bill as one for infringement, and to avail himself of the opportunity thus offered to interpose the defenses which are available only in patent suits, and to try the patent questions thus presented,—with the privilege of taking the benefit of the decision upon those questions, if it should prove to be in his favor; and should yet retain the privilege, if the decision should go against him, of refusing to be bound by it on the ground that it was not in reality a suit for infringement, after all.

The Circuit Court found no difficulty in disposing of the matter in accordance with the requirements of the rules of law and of justice. It said: "The complainants having established the validity of the Seabury patent and the fact of infringement by the defendant, they are entitled in a court of equity to be protected by injunction against the continuance of the infringement. *It is the right to this relief which gives the complainants their standing in court*, and they have it without regard to whether the infringement has been a mistake, or in bad faith" (365).

POINT THIRD. The Circuit Court rightly upheld the complainants' patent and found its infringement by the defendant.

Before entering upon the discussion of this point we are compelled to call attention to a well settled principle, which the argument on behalf of defendant and appellant seems to disregard.

Upon appeal from the decree of the Circuit Court, the only question which can be discussed is whether the decision of that court was correct *upon the evidence which was before that court*. The purpose of the record is to present that evidence to the appellate tribunal. And this court, in hearing an appeal, will not suffer its judgment to be influenced by any new testimony offered here. *United States v. Knight*, 1 Black, 488; *Reed v. Gardner*, 17 Wall, 409; *Thompson v. Wooster*, 114 U. S. 104.

Upon the trial of the cause the defendant produced a model of an alleged anticipating device which was testified to have been made in exact conformity with the published description contained in a British patent which had been issued to one Nordenfelt. The model so produced would not work, and defendant's witnesses testified that it would not work without some addition not shown in Nordenfelt's description. The reasons of its failure to work, and the nature and character of the devices which might be employed to render it operative, were subjects of testimony given by witnesses on both sides, and that testimony properly formed part of the record before the court.

But it is now proposed to present this model to this Court in a different condition, and to show that by virtue of some changes and additions which have been made since the decision of the Circuit Court, the model has been made operative.

The injustice of such a course, and the propriety of the rule which prohibits it, are readily seen.

If the model in its altered condition was to be employed as evidence against the complainants, they were entitled to an opportunity to examine it, to test its working, to have evidence upon the record as to the precise extent and nature of the changes which had been made, to cross-examine the witnesses by whom such changes were made and proved, and to show by their own witnesses how far such alterations failed to remove the objections to the original model as representing a practical and operative mechanism, how far they might introduce fresh objections to its being so regarded, and how far the alterations involved an exercise of the inventive act. This is a substantial right of the complainants and respondents, and one of which they will utterly be deprived if the rule cited is to be thus violated.

Infringement.

The appellant alleges as error in the third specification of error:

"Error in decreeing that Robert B. Dashiell, the defendant, has infringed upon the said Letters Patent No. 425,584."

Under this specification two questions arise:

1. Conceding that the patent should be construed, and the structure made and used by the defendant was such, as complain-

ants urge, do the acts of the defendant in respect thereto constitute infringement cognizable in this Court?

2. Should complainants' patent have that construction as that the mechanisms made and used or caused to be made and used by Dashiell are an infringement of it?

The questions will be considered in the order stated.

The infringement charged in the bill is that defendant has made and used and caused, procured and authorized others to make and use the patentee's invention (2).

It may be true that the defendant has not himself made a breech-loading cannon containing the invention, but he has caused, procured and authorized others to make and use it. The maxim, "*Qui facit per alium, facit per se*," applies in such cases. In nearly every case it is not the defendant personally who with his own hands commits the trespass. The wrong is accomplished by his causing or procuring others to do it. In every case where a corporation is defendant, it, of necessity, commits the trespass by procuring others, its officers or agents, to act. The acts of the actual trespasser become the acts of the principal, both by reason of the prior procurement and the subsequent ratification.

The bill also charges that from the infringement, "said defendant has realized large profits," and the proof is as charged, and that the defendant has a contract under which he is entitled to receive a royalty of $125 upon each gun containing the infringement. It may be that the Government, pending the determination of the question of right and in consequence of complainants' claim of infringement, has suspended its payment to defendant, but the Government may pay to-morrow. There is nothing to prevent the Government so doing, and at this moment the defendant herein may be prosecuting his claims in the Court of Claims.

And there would be no bar, but for the injunction in this suit, to prevent the defendant from manufacturing guns containing the invention or licensing others to manufacture for State militia or private parties for use, either in this country or abroad. The defendant stands on a claim of right. He asserts property in the invention, and has exercised ownership over it, in respect of selling the invention, by licensing others and causing others to make and use it, and this he claims the right to do, not merely by virtue of his own grant, but because of the alleged weakness of our own title.

The acts shown make out a clear case of infringement.

See 3 *Robinson on Patents*, Section 897, where the learned author says:

"Thus, where a landlord, in consideration of the occupation of his premises by manufacturers who employ infringing devices in their business, receives part of the profits of their business in addition to the sums paid to him as rent, he is not *ipso facto* an infringer, although he would infringe were this arrangement a mere cover for his participation in the operations of his tenants. For while the law does not impose unwarrantable burdens on the public by holding every one who derives a benefit from the prohibited manufacture, use or sale of an invention responsible as an infringer of the patent, it does not permit any one, under any color or pretense, to employ the patented invention as a means of advancing his own interest, except in due subordination to the wishes of the patentee."

That any party making profits by an infringement is a wrongdoer, and is liable to the patentee; see *Vaughn vs. East Tennessee, Virginia and Georgia R. R. Co.*, 11 O. G., 789.

That to share in the fruits of an infringement is such complicity as renders the parties jointly liable; see *Wells vs. Jaques*, 5 O. G., 364.

That where several parties infringe, some by making, others by selling the infringing articles, the infringement is joint and several, and judgment may be rendered against each, though only one satisfaction may be had; see *Jennings vs. Dolan*, 29 Fed. Rep., 861.

That an officer of a corporation, acting on its behalf in renting infringing machines to users, is a proper party defendant with such users in a bill for an injunction; see *Nichols vs. Pearce*, 7 Blatch., 5.

In *American Cotton Tie Supply Co. vs. McCreedy*, 17 O. G., 565 (BLATCHFORD, J.), it was held that a common carrier, as a steamship company, may participate in the infringing acts of others, by aiding in their perpetration or in securing their unwarranted reward. Agents, who of their own volition participate in an infringement, thereby become infringers, although in the performance of the act they have themselves no pecuniary interest (3 *Robinson on Patents*, Section 920, and cases there cited).

The granting of a license authorizing, or assuming to authorize, others to infringe, under a claim of right on the part of the grantor of the license, is equivalent to the act of one who attempts to disseize the owner of real estate by entry under claim of title, and by the grant of leases to tenants who are expected to maintain pos-

session and aid in the disseizin in the interest of the person who seeks by this means to oust the real owner of his title. The tenant under such lease is an offender, but the chief offender is the person whose lease he holds, and equity will not hesitate to lay its hand upon the person primarily responsible for the wrong.

That a defendant who contrives an infringing device, secures a patent for any improvement that there may be in it, and makes use of his improvement with the infringement in it by licensing others to make it and use it, and derives a profit therefrom by way of royalty on each infringing device made, is not liable to the patentee, would seem absurd. Such an infringer is the prime mover of the whole of the wrong; his act set the wrong a-going; he derives profit from it.

On this point the learned Circuit Court said (364, 365):

"Among other defenses, it is contended that this proceeding is in effect an attempt to enjoin the United States, as it is for the United States and its shops that these guns and breech-loading devices are being made. The testimony shows, however, that the manufacture is by authority and direction of the defendant and under a contract with him by which he is to be paid $125 for each gun. So far as he is concerned, he is not acting in this connection as an officer of the Navy, but as a patentee. He assumes that his own patent gives him the right, and he is authorizing and protecting the agents of the Government in making and using a device which is an infringement of the Seabury patent. The Government cannot itself lawfully use a patented invention without permission of the patentee, and any one who procures such an act to be done or adopts and accepts its benefits when done, is guilty of an infringement."

Besides, the consideration of this question has no relevancy in this suit. Whether the complainants have any standing against the Government may be determined when the complainants make their claim against the Government. The present suit is against Dashiell to enjoin his infringement, and to compel him to account.

Moreover, the present is not a case where the invention can be used by the Government alone. As already stated, the mechanism may be applied to guns manufactured here for foreign governments, or for the State militia. The Government of the United States has no exclusive use for rapid-fire guns. Every government desires them and has use for them. Nothing but an injunction can prevent the defendant from licensing private manufacturers to make his mechan-

ism for general sale to all other governments throughout the world or from entering upon such manufacture on his own account. If the defendant's device is an infringement, the complainants are entitled to such an injunction as a matter of course.

It is probable, almost a certainty, that the defendant, even if free to make a gun under his patent, would never himself make or sell one, but would derive a profit from his invention solely by licensing others to make and use it, and it is possible that the profit thus derived would far exceed in amount which might be made by his licensees. To hold that, if his device should be proved an infringement, the true inventor cannot sue the promoter of the infringement who derives the greatest advantage from it, would be to deprive the inventor of his greatest profit. That he may sue has never been doubted.

The Scope of Seabury's Invention.

No claim is made in this suit against the Dashiell gun, excepting under claim 1 of the Seabury patent. The defendant's witnesses concede that the Seabury invention, as claimed in the first claim of his patent, is embodied in the Dashiell gun if a broad construction is given to the Seabury claim, and, upon that construction, their position is that the Seabury device is not new. Complainants on the other hand contend that the Seabury invention, as specified in the first claim, is entitled to a reasonable construction according to its terms, and covering in essentials the principles of operation which are found in the combination of elements included therein, and that according to such construction not only does the Dashiell gun infringe the claim, but the principle of operation of Seabury's combination and its application to operative gun mechanism is new.

The construction of the Seabury first claim lies at the threshold of the case.

On this point we quote Mr. Newbury, a witness called to explain the operation and functional resemblances or differences of the mechanism exhibited in the various patents with which the case of concerned.

Speaking generally of breech-block mechanisms, he says (110–112):

"Various forms or shapes of breech block are used in breech-loading cannon, but the improvement set forth in the patent in suit relates generally to one class or kind of breech blocks, which are

known or termed as the mutilated or slotted screw form of block. These slotted or mutilated screw breech blocks consist of a block or plug of metal, which is first provided with screw threads in the usual manner, and the opening into the breech, which is designed to receive the block or plug is likewise provided with screw threads so that the block can be screwed into the breech of the gun and held there by the interlocking of the screw threads one with the other. This would require a large number of turns or complete rotations of the breech block in order to either secure it in place or remove it from the breech, and in order to facilitate this operation the screw threads upon the breech block or plug are cut away in lines longitudinally to the axial line of the gun. This cutting away of the screw threads extends to about one-half of the circumferential area of the breech block, and also extends to the depth of such threads. This cutting away of the screw thread forms in effect slots having the area above named and extending longitudinally of the plug. The screw threads in the breech of the gun are likewise cut away, and to the same exent, thus forming slots which are in extent equal to the screw threads remaining upon the screw block, so that such screw threads upon the block enter the slots or mutilated screw threads of the breech, and the remaining portion of the screw threads upon the breech likewise enter the slots or mutilated portion of the thread of the breech block.

"By reason of this slotting or mutilating of the screw threads of the breech block and the breech of the gun, the breech block can enter the breech of the gun without rotation, and only a partial turn or rotation of the block is required for the interlocking of the remaining portions of the screw threads of the breech block and breech of the gun to securely lock or fasten the breech block in place.

"Breech blocks thus having their screw threads slotted or mutilated are of two forms—viz., conical or step and cylindrical form—and cannon provided with such breech locks are sometimes known as cannon of the slotted or mutilated screw principle of mechanism.

"The cylindrical form of slotted or mutilated screw breech block is the preferred form, owing to the fact that it affords greater surface of screw threads, and is consequently of greater strength than the other form. Slotted or mutilated breech blocks are, as a rule, removed bodily from the breech of the gun onto a tray or carrier which is suitably arranged to receive the breech block as it is withdrawn from the breech, and when it has so received such block the

two are swung aside so as to expose the breech of the gun for the purpose of loading the same."

And respecting claim 1, Mr. Newbury says:

"The invention particularly pointed out in claim 1 of the patent in suit relates specially to the improvement of the mechanism by means of which slotted or mutilated screw breech blocks are thus withdrawn from the breech of the gun and then placed therein, and is intended to facilitate such operation and accomplish the same in the shortest space of time and with the least expenditure of force.

"Such invention consists in the combination with a breech-loading cannon which is provided with a breech block of the slotted or mutilated form and which is withdrawn in a rearward direction to remove it from the breech of the gun, of a breech-block carrier which is hinged to the breech, and a device composed essentially of a lever which is at one point hinged to the breech of the gun, and at another point connected to the breech block, and adapted to move independently of the breech-block carrier when withdrawing the breech block onto the carrier or pushing it therefrom, and to also move with the breech-block carrier when the breech block is upon the carrier and is to be swung aside. This device, which is composed essentially of a lever, is termed in said claim 1 'a breech-block retractor,' and is described in the specification of the patent in suit as composed of two arms, which are joined together so as to, in effect, be but one arm, which is hinged to the breech of the gun by a shaft or pintle designated in the specification of such patent as E. Such arm is connected to the breech block through a ring, by means of which the ring remains stationary when the breech block is partially turned or rotated to lock or unlock it from the breech. This ring is designated in the patent in suit as G^1, and the two arms forming the single arm therein designated as G.

"The specification of the patent in suit, after describing the construction of these arms and ring, says:

"'The arms G, the ring G^1, and the above-described connections between them constitute what may be termed a "breech-block retractor.'"

"The tray or carrier upon which the breech block is withdrawn to swing it aside is termed in said claim 1 'a breech-block carrier.'"

Now the elements of the first claim are, as stated in the claim and as above stated by Mr. Newberry, as follows:

1. In a breech-loading cannon.

2. A breech block for the same, which is withdrawn in a rearward direction.

3. A breech-block carrier hinged to the breech.

4. A breech-block retractor hinged to the breech, separate from said carrier and adapted.

(a) to move independently of said carrier to draw the breech block thereunto;

(b) and push it therefrom;

(c) but capable of moving with said carrier while the block is therein.

The objects for which any mechanism is devised, and the advantages arising therefrom, are the important factors in determining both their utility and their novelty, and also in determining the identity of principle and mode of operation when two rival mechanisms are compared. Mr. Newbery said respecting the advantages of the Seabury combination, and we quote him because he states the matter compactly (112):

"A. The invention practically recited in claim 1 of the patent in suit permits of the breech block being operated by the fewest possible number of parts and by the best expenditure of force. This is accomplished by reason of the small extent of frictional contact required between the means employed to operate or handle the breech block and the breech of the gun, or in other words, the small extent of frictional contact into which dirt or other foreign substances can enter, under the exceptional conditions in which such mechanisms are necessarily used, permits the mechanism to be operated by the least expenditure of force and the least liability of the derangement or failure of such mechanism.

"The invention of said claim 1 permits of the breech block being handled under the differing positions which it necessarily assumes by reason of the motion of the vessel when in action, and also from the differing positions the cannon is placed in when hurriedly moved from one location to another in field service.

"It will be remembered that when in battle and moving from one position to another as becomes necessary, and the conditions which are present during a battle, renders it very important that the mech-

anism shall be capable of being worked during the excitement of battle, and with the presence of dirt and other foreign matter, to a greater or less extent, in the mechanism, and that such mechanism shall be reliable under such conditions. It is well known that such a mechanism is liable to have more or less dirt or other foreign substances thrown into it by shot and shell thrown by the enemy, as well as by the operation of the person handling it, or during its movements from one location to another, and it is under these extraordinary circumstances that the mechanism is expected to work, and if it does not, it fails at the most critical time or at the time when it is most needed. From this it will be seen how important it is that the points of frictional contact or connection shall be few in number and small in extent, and of such a character that the presence of dirt or other foreign substances shall interfere as little as possible with the operation of the mechanism and also that when dirt or other foreign substances are thrown into or between the parts of the mechanism that it shall interfere as little as possible with the working of such mechanism, and also that such mechanism shall work with the least expenditure of force."

To recur to the language and proper construction of Claim 1. The language is :

" 1. The combination, with a breech-loading cannon and a breech-block for the same, which is withdrawn in a rearward direction, of a breech-block carrier hinged to the breech, and a breech-block retractor hinged to the breech separate from said carrier to move independently of said carrier to draw the breech-block thereinto and push it therefrom, but capable of moving with the said carrier while the breech-block is therein, substantially as herein set forth " (268).

It is seen that the words " substantially as herein set forth " occur at the end of the claim ; and, occurring there, they refer not to the retractor alone, or to any other element separately, but to the entire combination considered as such, irrespective of its constituents. The phrase " substantially as described " is always supposed to be in the claim, whether it is actually inserted or not ;—*Mitchell v. Tilghman*, 19 Wall., 287 ;—and means much or little, as the patentee intended, and as may be necessary to support the grant ;—*Seymour v. Osborne*, 3 Fish., 555.

Now what are the requirements of the law ?

Revised Statutes, Sec. 4886, provides: "Any person who has invented or discovered any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement thereof * * may * * obtain a patent therefor."

And the statute (Sec. 4888) requires of the inventor: "In case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying the principle, so as to distinguish it from other inventions, and he shall particularly point out and distinctly claim the part, improvement or combination which he claims as his discovery."

The result, or effect, or a function of a machine cannot be claimed, or be the subject of a valid patent. "It is not the result, effect or purpose to be accomplished which constitutes invention, or entitles a party to a patent, but the mechanical means or instrumentalities by which the object sought is to be attained. * * * Patents cover the means employed to effect results." *Miller v. Eagle Manufacturing Co.*, 151 U. S., 201. Therefore the inventor must describe such means.

Thus he is required, as seen, in "case of a machine" or in case of a combination of elements constituting an operative device or machine as a mechanical means or instrumentality to some end, to explain its principle, that is, the method or law of its operation, and this for the purpose of distinguishing it from all other inventions. It is the principle, but as embodied in the concrete structure, with which the law concerns itself. He is also bound to predicate his description and explanation upon an embodiment of his conception in a structure which shall show the best mode of applying the principle known to him. The inventor is also bound to "particularly point out and distinctly claim the part, improvement or combination which he claims as his invention." In doing this he may claim abstractions based upon and found in the concrete means described, and he is entitled to so claim because, in the very nature of the thing, the conception of the concrete combination involved the conception of the same combination in the abstract, just as the perception of an individual man involves the perception of man as an abstraction, or as the perception of an individual of a class involves the conception of a class to which the individual belongs. Or it may be put in this way, that the inventor, in conceiving a combination of elements as a means to an end, conceives at the same time of the concrete combination of specific elements which, so to say, embody or illustrate the idea. But the inventor

is not bound to describe all the concrete combinations which will embody his principle. It is enough if he describes the best mode of applying the principle known to him. Hence it results that in making his claims he may claim the combination of elements generically so as to include in his claim all the individuals composing the genus, whether he is acquainted with them or not, and he may also claim the specific combination, which includes only the precise element specifically described. If he has claimed the former only, and if he was entitled, in view of the state of the art, to make the generic claim, he is entitled to cover combinations of specific devices which are properly included in the genus. If the state of the art is such as not to entitle him to this, then his claim may be construed narrowly, as a claim for a combination of specific things would be, and this in order to support the grant and give him his reward. If, on the other hand, there is substantial novelty in the generic claim, he will be entitled, when it comes to distinguishing his invention from some other construction, to a broad range of equivalents,—not equivalents of the entire combination, but, resolving the combination into its elements, equivalents of one or more of the elements actually described by him in his description of the machine.

Conformably to the statute, Seabury described a machine and explained the principle of its operation, and in so doing explained also the best mode in which he contemplated applying that principle at that time, and when he came to make his claims he claimed in claim 1, as his invention, a combination of elements generically, and he claimed in claim 5 a combination of elements specifically. In claim 5 he claimed a breech-block, a retractor consisting of an arm, a hinge by which such arm is connected with the breech of the gun, a ring screwed into the breech-block, a sliding connection between the arm and ring, a pivot spindle for the hinge engaging with the arm, a pinion on the pivot, a toothed rack geared with the pinion, a lever for carrying the rack having its fulcrum on the breech, in combination with the gun. Here was a specific claim for the concrete thing which the inventor described. Claims 2, 3, 4 and 6 are also specific in certain other respects, including also in part things specifically mentioned in claim 5. But, although the retractor of claim 5 is specifically described by mention of the parts composing it, yet each of these parts is to be considered generically in ascertaining whether or not some other retractor is not composed of substantially the same or equivalent parts.

In claim 1 Seabury claims as his invention a generic combination consisting of (1) a breech-loading cannon; (2) a breech-block for the same, but a breech-block which is withdrawn in a rearward direction; (3) a breech-block carrier, but it is one which is hinged to the breech; (4) a breech-block retractor, but it is one which is hinged to the breech separate from said carrier and adapted to move independently of said carrier to draw the breech-block thereinto and push it therefrom, but capable of moving with said carrier while the block is therein.

The fourth element, the retractor, is, on account of the limitations imposed in the claim, to be considered as specific when Seabury's retractor is compared with all other retractors, either before or since; but it is to be considered as generic when compared with other retractors of the sub-class described, namely, retractors hinged to the breech, separate from the carrier and adapted to move independently of the carrier to draw the breech-block thereinto and push it therefrom, but capable of moving with the carrier while the block is therein.

It is an invention of that scope which Seabury describes and claims as his own. If any patent antecedent to his invention describes a combination of these elements, the claim is void for want of novelty. If, on the other hand, that combination appears to be novel, the claim is valid; and if the Dashiell mechanism contains those elements, including a retractor hinged to the breech, separate from the carrier, and adapted to act as is mentioned in the claim, the Dashiell mechanism contains the invention of that claim. It may be that the retractor of Dashiell is not exactly like the retractor of Seabury; that formal differences exist; that Dashiell's may even be better than Seabury's. In such case Dashiell's form is one of the forms in which Seabury's invention may be embodied. It may be a form not described by Seabury, one which had not even occurred to Seabury, but the invention of Seabury's combination resides in it just the same. The limitation imposed in the claim on the element, the retractor, was imposed therein for the purpose of distinguishing Seabury's retractor from preceding devices which might be used as, or actually were, retractors. In differentiating his retractor from preceding retractors, Seabury created or defined, as the case may be, a sub-class of retractors; being a species as respects retractors of all kinds, but a class of itself as respects retractors of that particular kind.

It will thus be seen that the claim in behalf of the Seabury invention is not that *a* retractor is novel, but that a retractor of the the sub-class described is novel. It is true that claim 1 of the patent is for a combination and not for a novel retractor, but it is equally true that if a combination includes a novel element, the combination must necessarily be a novel combination. And any similar combination embracing a retractor of this novel sub-class, either of the specific form shown by the inventor as an illustration and embodiment of his idea, or any equivalent for it, is therefore an infringement.

When, in a class of machines widely used, it is made to appear that, after repeated and futile attempts, a machine has been contrived which accomplishes the result desired, and a patent is granted to the inventor, the courts will not adopt a narrow construction. *Keystone Manufacturing Co. v. Adams*, 151 U. S., 139.

Nature and Value of Seabury's Invention.

The importance of Seabury's invention has been already indicated, in some measure. The problem of handling the cylindrical screw-block, *the true screw-block*, was one presenting very great difficulties by reason of the diversity of the three motions to be combined; the advantages to be derived from a successful solution of that problem had been fully recognized and could hardly be overestimated. Rapidity of fire was absolutely demanded in order to keep pace with the developments in other directions in the art and science of war. So imperative was this demand that, in order to meet it, prior inventors were forced, as we have seen, to resort to other forms of block by reason of the difficulties which the screw-block presented. But the great desideratum was a device which would at the same time give the necessary rapidity of fire, and preserve the unquestioned advantages of the true screw-block. Such a device was Seabury's, and he was the first to solve this problem.

This invention enabled the three motions—previously performed successively by hand—to be performed by a single sweep of a lever and with the greatest possible rapidity, and that, too, without altering the shape or proportions of the screw-block in general use, or impairing in any way the strength of the gun. And it was adaptable as well to existing guns as to those which might be constructed with a special view to its use.

The invention presented not only these fundamental and essential advantages, but also the further ones of its small number of parts and points of connection, application of power to the best advantage, small amount of lost motion, sliding contacts and frictional resistances, little expossure to derangement by dirt and other foreign matter, compactness and strength of construction, and certainty of operation under exceptional conditions of battle. The most, if not all, of these advantages may be traced directly to Seabury's idea of hinging the retractor to the breech in the manner, and in the combination, and for the purposes described in Claim 1 of his patent.

Infringement of Claim I.

Keeping in mind the elements of the combination of the Seabury first claim, the same elements are found in combination in the Dashiell gun operating in substantially the same manner. Mr. Newbury makes this comparison (113–114). (Model Y is a model made and produced by defendant and illustrates the breech of a gun made according to Dashiell's patent, and also illustrates the gun claimed to infringe the Seabury patent, proof of the use of which by Dashiell prior to commencing this suit, at Indian Head Proving Ground, was made by complainant, and which proof is not contradicted or qualified):

"In each there is a breech-loading cannon provided with a slotted or mutilated breech-block which is withdrawn in a rearward direction onto a breech-block carrier, and then swung aside to open or expose the breech of the gun for loading purposes, and which is again swung in front of and the breech block is pushed into the breech of the gun to close the same for firing purposes.

"In each there is a breech-block carrier, which is hinged to the breech of the gun, and which is adapted to receive the breech block upon it and to move or swing the same aside and return it again in front of the breech of the gun.

"In each there is a device composed essentially of a lever, which is at one point hinged to the breech of the gun, and at another point connected to the breach block and adapted to move independently of the breech-block carrier when withdrawing the breech block onto the carrier or pushing it therefrom, and also to move with the breech-block carrier when the breech block is upon the same and is to be swung aside when opening or closing the breech.

"In each the several devices or elements are combined together in substantially the same way to perform the same work, and are composed of substantially the same means.

"In each the several devices or elements individually serve substantially the same functions in substantially the same manner."

Inspection of the model, and comparing it with the Seabury gun, discloses certain formal differences, which Mr. Newbury comments upon as follows, and he also refers fully and, as we think, fairly, to the views expressed on defendant's behalf respecting these differences (113–116):

"When forming the above opinion I did not overlook the fact that in the form of mechanism used to illustrate the invention of said claim 1, the breech-block carrier and the device composed essentially of a lever, and termed in said claim 1 a breech-block retractor, are both hinged to the breech by means of a single shaft or pintle, while in the Dashiell gun, as shown in said Defendant's Exhibit Model Y, the corresponding device composed essentially of a lever, and which I will term the breech-block retractor of that gun, and the breech-block carrier are not both hinged to the breech by a single shaft or pintle, but I did not deem this difference a material one when considering the substantial identity between the invention particularly recited in said claim 1, and the said Dashiell gun, because in each case, for all the purposes of the invention recited in said claim 1, the breech-block retractor of the said Dashiell gun, as shown in said model Y, is as effectually hinged to the breech of the gun, *when it serves the purposes of a breech-block retractor*, as is the case in the mechanism used to illustrate the invention set forth in said claim 1—that is the breech-block retractor of the Dashiell gun, as shown in said model Y, when acting as a retractor for the breech block, is hinged to the carrier at a point immediately adjacent to the shaft or pintle by means of which the breech-block carrier is hinged to the breech, and this point of hinging the breech-block retractor to the carrier is as immovable when withdrawing the breech block onto the carrier, or pushing it therefrom, as it would be if such retractor was hinged directly upon the same shaft or pintle that is used to hinge the breech-block carrier to the breech.

"Again, there is nothing whatever in the said Dashiell gun which prevents the said breech-block retractor from working in substantially the same way as the breech-block retractor in the mechanism used to illustrate the invention of said claim 1 works. That is, this difference in the point or points of hinging the breech-block re-

tractor to the breech of the gun does not in any way affect the operation of such retractor when withdrawing the breech block onto the carrier or pushing it therefrom.

" Furthermore, the breech-block retractor of the Dashiell gun, as shown in said model Y, could have its axial line of hinging made coincident with the axial lina of hinging the breech-block carrier of that model to the breech, so that a single shaft or pintle could be employed for hinging the carrier and retractor to the breech, the same as is done in the mechanism used to illustrate the invention of said claim 1, and the doing of this would not in way affect the operation of the several parts of the Dashiell gun as shown in said model. Therefore, there is nothing in the combination of the elements found in the Dashiell gun, as shown in said model Y, which requires that the breech-block retractor shall be hinged to the breech of the gun at a point differing somewhat from that at which the breech-block carrier is hinged.

" This fact alone compels me to the opinion that the difference above pointed out between the mechanism used to illustrate the invention of said claim 1 and the Dashiell gun, as shown in said model Y, is wholly immaterial, and not of the slightest consequence when considering the substantial identity between said invention and said gun.

" I also did not overlook the fact that the breech-block retractor in said model Y is connected to the breech block in a somewhat different manner from what the breech-block retractor in the mechanism used to illustrate the invention of said claim 1 is therein connected to the breech block, but I did not deem this difference material, because in each case the breech-block retractor is connected to the breech block in such manner as that the breech block can be partially turned or rotated to lock and unlock the same from the breech of the gun without disturbing the connection between the retractor and the breech block, and yet have the connection continuous and not broken during the time that the breech block is rotated or turned and withdrawn from or pushed into the breech of the gun.

" This connection in each case serves the same function, and serves it in the same way, therefore, it is manifestly an immaterial difference when considering the substantial identity between the said invention and the said gun.

" I also did not overlook the fact that the breech-block retractor found in the illustration used to illustrate the invention is composed

of two arms, which are secured together so as to form a single forked arm, while in the Dashiell gun, as shown in said model Y, the corresponding breech-block retractor is composed of a single piece, and of somewhat different shape from that of the said forked arm retractor found in the mechanism used to illustrate the invention of said claim 1, but I did not deem this difference material when considering the substantial identity of said invention and said gun, because said difference in no way affects or modifies the action or operation of the two breech-block retractors.

" In this connection I desire to call attention to the fact that Mr. Dashiell refers to the breech-block retractor of said model Y as a bell-crank lever—that is, a lever which is of bent or elbow shape, having its fulcrum at the point of bend. This breech-block retractor of said model Y is not, as a matter of fact, what is known to mechanics as a bell crank or elbow lever, because it does not have its fulcrum at the point of bend or elbow of the lever, but it does have its fulcrum at one end of such lever, and because of this fact it is not what is known as a bell-crank lever. It is true that such retractor is of a bent shape, such as is many times found in bell crank or elbow levers, but this fact does not make such lever what is known to mechanics as a bell crank or elbow, and for the reason just stated.

" This lever, which forms the essential part of the breech-block retractor of said model Y is of the same character or class as the lever formed by the two arms in the mechanism used to illustrate the invention of said claim 1 is—that is, in both cases the power is applied between the fulcrum and the weight, and each is known to mechanics as a lever of the third class, because of the fact that the power is applied to the lever between the weight and the fulcrum.

" In connection with the location of the fulcrum of the lever forming the essential part of the breech-block retractor of said model Y, I call attention to the fact that said fulcrum point is as stationary, positive and rigid as it would be if its fulcrum point were upon the same shaft or pintle that is used to hinge the breech-block carrier to the breech of the gun, and also that such fulcrum point is never disturbed while the breech-block retractor is serving its function as a retractor to withdraw the breech block onto the carrier and to push it therefrom.

" Because of the above fact I am compelled to the opinion expressed at the beginning of this answer, as well as to be of the

opinion that whatever differences there may exist between the Dashiell gun as shown in said model Y, and the mechanism used to illustrate the invention of said claim 1 are immaterial differences and are not of the slightest consequence when considering the substantial identity between the said gun and the said invention."

Defendant's Expert Witnesses Admit Infringement.

Mr. Bartlett (defendant's expert witness), of Washington, a solicitor of patents, formerly an Examiner in the Patent Office, in the class of fire arms, says (204):

"I therefore find in the reading of the patent, as I understand it, and in its relation to the construction of the Dashiell gun, which I have examined, that, independently of all other matters, claim 1 of the Seabury patent would, in my opinion, cover the construction of the breech mechanism of the Dashiell gun."

And, in another answer, where Mr. Bartlett was asked to state in what respect the claims of the patent in suit apply to the Dashiell gun he saw at the gun foundry in Washington, he says, when dealing with claim 1 of the patent in suit, and especially referring to the element or device known as a breech-block retractor (204-205)

"I do not find precisely this construction in the Dashiell gun or model, but I find what may fairly be called a breech-block retractor hinged to the breech carrier, instead of to the breech. *There is little difference in the mode of operation of withdrawing the breech plug from the breech and depositing it upon the carrier. I should not consider this difference a vital one; and, if claim 1 in the Seabury patent is entitled to the broadest construction of which its language is capable, I should consider that it covers the construction of the Dashiell gun.*"

Mr. Dodge (230), defendant's other expert witness, when asked if, in his opinion, the Dashiell gun contained the subject matter of Seabury's claim 1, used the following language in partial answer thereto:

"If the Seabury claim No. 1 is to be construed in the light of prior art, it must be so limited, in my opinion, that it will not include the structure shown in the Dashiell gun. In my opinion, if the claim of Seabury is to be sufficiently broad or generic in its character to cover the Dashiell gun, it will be fully anticipated by the Nordenfelt patent."

From this language of Mr. Dodge's it may be fairly inferred that if claim one of the patent in suit is broadly construed, that then it would cover the Dashiell gun. A broad construction of a claim is only a reasonable construction of the words of the claim to give to the inventor what, in view of the state of the art, he invented.

Hinging to the Breech.

In the Dashiell gun the breech-lock retractor and the breech-block carrier are not both hinged to the bridge by a single shaft or pintle as in Seabury. But claim 1 of the Seabury patent does not require that the retractor and the carrier shall be *both* hinged to the breach by means of *a single shaft or pintle*. That claim requires only that the retractor and the carrier shall be *hinged* to the breech. It is not disputed that in the Dashiell gun the carrier is hinged to the breech, nor is it disputed that the retractor is *hinged* to the breech. That the retractor is *hinged* to the breech when the retractor is operating to withdraw the block, is manifest upon operating the model Y. To constitute a hinge, it is not necessary that there should be a loop or cylinder revolving upon a shaft or pintle. If one thing turns upon another, the former is *hinged* upon the latter, or turns upon it as upon a *hinge*, irrespective of how the turning part is secured to the part on which it turns. Now, in the Dashiell construction there is no shaft within a loop or eye, the eye turning upon the shaft, but there is a solid base of metal upon which the lever of the retractor turns as upon a hinge, and upon which it is, in fact, *hinged*. This is a well-known form of hinge, and familiar examples of it are found in the double-swing gate, so hinged as that the gate may swing either in or out. In such hinges there is no eye turning upon a shaft; there are two open sockets in which the free brackets of the hinge turn at one side or the other upon pins or posts as the gate swings in or out. In the Dashiell construction, therefore, the retractor is hinged. It is also hinged upon the breech of the gun. It is true that the metal on which the retractor turns is not an integral portion of the breech at all times, *but when the retractor is operating to withdraw or push back the block, the metal base on which the retractor turns is substantially a part of the breech.* It abuts upon the breech. It is *connected* with the breech. It is, to all intents and purposes, so far as the operation of the retractor is concerned, *a part* of the breech. It is *united* to the breech. It has become *a part* of, if not integral with, the breech, and every advan-

tage arises from this contiguity or union in the Dashiell gun, that arises from the construction shown in the Seabury patent; and respecting Dashiell's gun, it is as true, both literally and substantially, mode of operation considered, that in operation the retractor is hinged to the breech. The advantages resulting have already been referred to.

These points of difference, and some others, were fully considered and taken into account by Mr. Newberry in his answer to Q. 9 above quoted.

EQUIVALENTS.

The Seabury and the Dashiell constructions, in respect to the manner of hinging the retractor upon the breech, are equivalents.

The essential attribute of an equivalent is its capability of serving as a substitute for the act or principle in whose place it is employed. The existence of this capability cannot be ascertained by an examination of the alleged equivalent alone, nor by comparing the two acts or things in their separated state. It depends upon the relation which each occupies toward the invention into which they enter, and on the manner in which each co-operates in the invention with the other acts or things to which it is there united. Equivalence, therefore, is determined by contrasting the two acts or things when associated with the other elements of the invention and engaged in the performance of the functions which they are intended to discharge. If, when subjected to this test, it is discovered that each so operates in the invention as to perform the function of the other, each is, in reference to that invention, the equivalent of the other. 1 *Robinson on Patents*, Section 248; *Morley Machine Co. vs. Lancaster*, 129 U. S., 263.

The question, and the only question is, does the Dashiell mechanism contain the combination of elements mentioned in Seabury's Claim 1, with the limitation imposed upon that combination in that claim, and no other. The claim is not to be construed narrowly as if for a specific device, and elements imported into it which have not been placed in it by the patentee. The specific invention is claimed in other claims. Claim 1 claims the invention broadly. The question is to be determined not by non-essential differences, but by substantial resemblances. For instance, the precise form of the lever arm of the retractor is unimportant. An arm is necessary to the Seabury invention for the purpose of withdrawing and re-

turning the breech-block, which is one of the things to be performed by a single sweep of the hand lever, and any arm, be it straight or curved, single or forked, or of any form most conveniently adapted to the purpose, which will do that, will embody the mechanism which Seabury mentions in his claim, because there is no other way of doing that excepting by the mechanism mentioned in the claim; that is, hinged and adapted to move as therein stated, and operating on the same principle.

As is said in *Machine Co. v. Murphy*, 97 U. S. 130, we "are not to judge about similarities or differences by the names of things, but are to look at the machines or their several devices or elements in the light of what they do, or what office or function they perform, and how they perform it;" or, as is said in *Electric S. Co. v. Hall S. Co.*, 114 U. S. 87, we must see if "the elements combined in both cases" are "the same, and combine in the same way so that each element shall perform the same function; provided, however, that the differences alleged are not merely colorable according to the rule forbidding the use of known equivalents." Let us apply these rules to the present case.

It is not disputed that Dashiell's is a breech-loading cannon, and that the breeck-block is withdrawn in a rearward direction, nor can it be disputed that the breech-block carrier is hinged to the breech, and the carrier is adapted to receive the block upon it and to move or swing the breech block aside and carry it back again to a position in front of the open breech of the gun. That is all which the carrier hinged to the breech does in the Seabury mechanism, and so far as the carrier is concerned both carriers are the same "in the light of what they do or what office or function they perform and how they perform it," so far as relates to the invention in claim 1.

Now, as to the retractor. We must find in the Dashiell mechanism a retractor which is hinged to the breech, separate from the carrier, to move independently of the carrier to draw the breech block thereinto and push it therefrom, but capable of moving with the carrier while the breech block is therein. Is Dashiell's retractor hinged to the breech? It certainly is not hinged to the breech in the exact way and with the same kind of a hinge that Seabury's is—there is a difference. In Seabury's the retractor is hinged upon a shaft or pintle connected with the breech; Dashiell's is not. An advantage results from hinging the retractor to the breech; it permits the weighted end of the lever to be short and hence a greater

amount of power to be exercised by the power end of the lever, or, what is the same thing, it permits the power end of the lever to be shortened, thereby permitting power enough to be exerted by a shorter sweep of the handle than would otherwise be the case. This advantage is desired and is important only while the breech block is being withdrawn from the breech and is being carried to one side. Where the retractor is hinged *at other times* is of no importance, because the retractor is not at other times in use. Furthermore, hinging the retractor to the breech permits compactness of construction which is also of importance.

In the Dashiell gun the retractor is just as effectually hinged to the breech of the gun as in Seabury. As matter of fact, in Seabury the retractor is not hinged to the breech of the gun, excepting in a certain sense. Seabury's retractor is, in point of fact, hinged upon a pintle or shaft contained in the eyes of lugs which project from the breech, to which pintle or shaft the carrier is also hinged. Now, in Dashiell, the retractor hinges when it is operating to withdraw or push back the breech block upon the hinder part of the carrier at a point immediately adjacent to the shaft or pintle to which the carrier is itself hinged to the breech, and this point or place, and this bit of metal on which the retractor hinges when operating, is just as immovable when withdrawing the breech block onto the carrier or pushing it therefrom, as it would be if such retractor was hinged directly upon the same shaft or pintle that is used to hinge the breech block carrier to the breech.

The fulcrum point of the retractor is as stationary, positive and rigid as it would be if its fulcrum point were upon the same shaft or pintle that serves as hinge for the carrier, and that fulcrum point is never disturbed while the retractor is operating to withdraw or push back the breech block. While that operation is proceeding the part of the carrier which serves as the fulcum for the retractor or on which the retractor hinges is, for all practical purposes, in every respect a part of the breach of the gun itself and integral with it. Suppose, while the retractor is acting, a latch should secure the hind part of the carrier on which the retractor hinges to the breech, the latch adapted to let go the carrier when the carrier is not swinging, would there be any doubt then but that the retractor was hinged to the breech when the retractor is operating; but a latch is unnecessary; and is there any less doubt, there being no latch? Regarding the devices "in the light of what they do or what office or "function they perform and how they perform it" do we not find

that Dashiell's hinge performs the same office or function and in the same way that Seabury's does? In each the hinge serves as a fulcrum point whereby, at two certain periods in the entire operation, the power being exerted through the lever may move the weight, *i. e.*, the breech block. In each that fulcrum point is secured to the breech of the gun. In Seabury it is a shaft within the eyes of lugs; in Dashiell it is the hinder part of the carrier which is itself rigidly attached to a shaft within the eyes of lugs secured to the breech. In each the result is the same, the withdrawal and pushing back of the block at two certain periods of the entire operation. In each the withdrawal and pushing back is done in the same order with respect to other movements. In each the mass of the breech supports the fulcrum point. In each the fulcrum is rigid because of the firmness of the shaft in the lugs. In each the withdrawal and pushing back of the entire movement is accomplished by a simple short sweep of the hand lever, and this because of the proximity of the hinge to the breech. Is not, therefore, the principle which is found in the Seabury combination found also in Dashiell?

Test of Identity.

It has been suggested that a difference between the two mechanisms would be demonstrated by removing the retractors from each, and observing the operation of the remainder of the mechanisms in such mutilated condition. No such test has been narrated or described in the proofs; but it is manifest that such a test would be worthless. The function of each portion of the mechanism is intended to be performed in its connection with and relation to the other portions. The Seabury machine was not devised with any purpose of showing how far the three motions it was to perform might be rendered independent of each other, or mutually interdependent upon each other. It was devised to perform each of the three motions in due order, by a single output of power; and that result it successfully produces. The retractor arm of each is designed to, and does perform the second of the two motions, withdrawing the breech-block onto the tray from the breech, in opening, and returning the breech-block from the tray to the breech, in closing, and that is the function and the only function of the retractor arm in each device. The idea of such a test seems to originate in the fallacy that the Dashiell device, in order to infringe, must replace, piece by piece, with some detail of its own, each detail

of the Seabury mechanism. One construction may have fifteen parts where the other has five, and still the principle of operation may remain the same. And the principle can be in nowise affected by the fact that the forms of construction so differ that the removal of a certain part or a certain number of parts does not effect precisely the same degree of inoperativeness in each. Each is a whole, and is devised to work as a whole, and without regard to its efficiency or inefficiency in a mutilated form.

The true principle for determining identity of the invention found in the Dashiell construction with the invention found in the Seabury patents is enunciated in *Morley Machine Co. vs. Lancaster*, 129 U. S., 263. The points decided are compactly stated in the headnote of the case as follows :

" The Morley machine contains and is made up of three main groups of instrumentalities : (1) Mechanism for holding the buttons in mass and delivering them separately, in proper position, over the fabric, so that they may be attached to it by the sewing and stitching mechanism ; (2) the stitching mechanism ; (3) the mechanism for feeding the fabric along, so as to space the stitches and consequently the buttons when sewed on.

" The Morley machine was the first one which accomplished the result of automatically separating buttons which have a shank from a mass of the same, conveying them in order to a position where they can be selected by the machine, one after another, and, by sewing mechanism, coupled with suitable mechanism for feeding the fabric, be sewed thereto at prescribed suitable distances apart from each other.

" No machine existing prior to Morley's is shown to have accomplished the operation of turning a shank button, the head of which is heavier than its shank and eye combined, into such a position that a plane passing through its eye shall be perpendicular to a plane passing through the long axis of the sewing needle, so as to insure the passage of the needle through the eye.

" The Lancaster machine infringes the Morley Patent, although there are certain specific differences between the button-feeding mechanisms in the two machines, and also certain specific differences between their sewing mechanisms.

" Morley having been the first person who succeeded in producing an automatic machine for sewing buttons of the kind in question upon fabrics is entitled to a liberal construction of the claims of his patent.

" Where an invention is one of a primary character, and the mechanical functions performed by the machine are, as a whole, entirely new, all subsequent machines which employ substantially the same means to accomplish the same result are infringements, although the subsequent machine may contain improvements in the separate mechanisms which go to make up the machine."

The resemblances and differences are fully explained at page 283 *et seq.* of the case, and the differences were not only more numerous, but very much more radical than in the case at bar. The Court fully considered (p. 286) the argument urged by the defendant, that the claims were not to be considered as for a result or effect, irrespective of the means by which the effect was accomplished, and that it was open to a subsequent inventor to accomplish the same result, if he can, by substantially different means, and due effect was also given to the defendant's contention that its devices, or some of them, were unknown before; that its devices were an improvement upon those described in the patent and were themselves the subject of a patent. The Court held them equivalents nevertheless, remarking that although in one sense they could not be deemed known equivalents in such a machine, because the machine of the patent was the first of its particular kind, yet the defendant had employed devices which in mechanics were recognized as proper substitutes for the devices used by the patentee to effect the same result (see p. 289). The case is instructive on other points. It is authority also on the point that the devices, such as the ring and sliding connection shown in the Seabury patent, are not to be construed as a part of his claim 1. In every case of a combination of elements, if one or more elements are taken away and substituted by equivalents, it follows that the appurtenances or incidents properly belonging to the original element must also yield to the appurtenances and incidents suitable to the element which comes into the combination as the substitute.

In Westinghouse Air Brake Co. vs. New York Air Brake Co., not yet reported, the Circuit Court of Appeals for the Second Circuit said:

" Means must necessarily be shown in the specification, but the identical means or the special devices were not, in the language of *Morley Machine Co. vs. Lancaster*, 129 U. S., 263, 'necessary constituents' of the invention, either in the specification or in the claim. The skill and mechanical ingenuity of constructors of locomotives can, as will be seen hereafter in the examination of other

patents and of the infringing devices, arrange different details of mechanical construction, by means of pistons, valves, ports and springs which, adopting the supplemental chamber system first conceived and embodied by the patentee, and a kindred, but not precisely the same, mechanical method for the movement of the piston, will accomplish the same result. The patentee was a pioneer in that he designed, in No. 376,837, a new way to accomplish a desired result, but upon the same general idea which he had unsuccessfully tried to work out in the earlier patent. His later patent was the bridge, and not a mere step, which carried railroad car builders from failure to success. It is not important now to determine the grade of its pioneership, and whether it may be classed in the list of those inventions which are of the highest rank, but it was an invention created to achieve great necessities and overcome great hindrances, and was one of wide breadth. A Court would not be justified in adopting 'a narrow or astute construction' which should minimize the character of the invention, leave its real scope open to trespassers, and thus 'be fatal to the grant.' The claims of the patent do not contract the grant to narrower limits than those which the invention as made by the patentee actually covered, and the claims, therefore, are not limited to the precise mechanical means described in the specification by which the supplementary piston is actuated."

To entitle a patent to be so construed, it is not necessary, and it will rarely be found that the invention is a pioneer in the sense that Bell's telephone was; and even that, in a strict sense, was not a pioneer, because telephones which transmitted musical tones existed before, but there was none which transmitted articulate speech. In almost every case the pioneer is such only in a subordinate or limited class.

Thus, in *Keystone Mfg. Co. vs. Adams*, 151 U. S., 139, where the patent was for an improved corn sheller. The patentee was deemed a pioneer, although he had only remedied defects in existing machines. The Court said (p. 144):

"Where the patented invention consists of an improvement of machines previously existing, it is not always easy to point out what it is that distinguishes a new and successful machine from an old and ineffectual one. But when, in the class of machines so widely used as those in question, it is made to appear that at last, after repeated and futile attemps, a machine has been contrived which accomplishes the result desired, and when the Patent Office has

granted a patent to the successful inventor, the courts should not be ready to adopt a narrow or astute construction, fatal to the grant."

Judged by these rules, claim *one* of the Seabury patent is not to be interpreted by a "narrow or astute" construction, but is to be construed according to the ordinary and natural and reasonable meaning of the terms of the grant, as expressed in the language of the claim. Upon such a construction it is entirely clear that Dashiell is an infringer; so clear that it is frankly admitted by Dashiell's own experts, Bartlett and Dodge, in their direct testimony.

Novelty.

The appellant alleges error, and assigns, among others, the following grounds:

"Error in decreeing that said Samuel Seabury was the first and original discover of the improvement in breech-loading cannon, as described and claimed in said Letters Patent No. 425,584, and the specifications annexed thereto."

"Error in finding that the British Letters Patent No. 7195 of 1887, issued to Thorsten Nordenfelt, and filed in this cause, do not describe an operative device."

"Error in finding that said device described in Nordenfelt British Letters Patent No. 7195 of 1887 'lacks one essential of Seabury's claim; namely, the retractor is not separate from the carrier and does not move independently of the carrier.'"

These specifications of error refer to the novelty of the Seabury invention.

The appellant does not on this appeal specifically allege that the Seabury patent is void for want of novelty, or that the invention is anticipated by any preceeding, described or patent device excepting by the British Letters Patent to Nordenfelt No. 7195 of 1887, unless such an allegation of want of novelty can be inferred from the general terms of the assignment we have quoted above. Being in doubt about the position of the appellant, we shall refer briefly to several prior patents alleged in the answer to describe anticipating devices, and, if the appellant does not claim in this Court that none other than the Nordenfelt patent anticipates the Seabury invention,

a brief reference to them will be useful as illustrating the state of the art.

As already seen, defendant's position is, that in view of the state of the art, claim one of Seabury's patent must be construed so narrowly in order to leave in it any validity that by reason of the minor and unimportant differences existing between the Seabury and Dashiell construction, the latter cannot be held to contain the same elements in combination as the Seabury claim requires. On the other hand, complainants contend that the Seabury claim must be construed reasonably according to its terms to embrace every combination containing the same elements operating in substantially the same manner, and that minor differences of form which do not touch the vital principle of the organization as an operative combination are to be disregarded. That the substance of the thing is to be looked at, and that the state of the art shows Seabury to have been a pioneer inventor, in being the first to devise and describe the mechanism of a breech-loading gun, capable of practical operation under the differences required of such a structure, and affording the advantages so important in mechanisms of this nature.

Priority of Seabury's Invention.

There is no reasonable doubt that Seabury's conception of his invention antedated both the Sauvèe and Nordenfelt patents which were issued in 1887.

It is true that in one point of view the evidence of this fact seems weak, and is not of the quality usually relied upon to establish priority of conception. But, rightly considered it will be seen to possess much of the convincing force with which circumstantial evidence sometimes outweighs more direct proof. Seabury testified to the form and shape the idea first took in his mind (76-77), before his cruise which began in 1885 (90). He made sketches at the time on odd bits of paper which he did not preserve, and these he reproduced in the sketches which are marked Exhibits A^2 and A^3 (271). His official duties, as he has narrated them (78, 93–97), so fully engrossed his time that he was only able to work casually upon this idea, without any facilities for making models or experimenting, until his three years' cruise on the Tennessee and the Richmond came to an end in October, 1888, and he was assigned to shore duty at New York. Then he took the matter up and persevered in it

until in May, 1889, he had it worked out in the form shown by the application for the patent in suit.

It is apparent that the idea first conceived by Seabury and illustrated by these sketches had taken in his mind a form bearing little outward resemblance to the design exhibited in the patent in suit. But the controlling force of this idea upon his mind is shown by the fact that he continued, after applying for the patent in suit, to work it out still further in his subsequent devices, all embodying the same general principles, but successively approaching nearer to this original form. These devices are shown by the models L, M, N and O (80–81).

Mr. Newbury testified that the original idea as shown by these sketches contained the essence of the invention, and only needed the aid of the necessary mechanical skill to make it operative (150); and to demonstrate the truth of this opinion, he submitted the sketches to a skilled draughtsman, accustomed to the laying out of cam surfaces, read him Seabury's testimony relative to the sketches, and with no knowledge of any of Seabury's perfected devices the draughtsman produced a drawing of a practical breech mechanism in the form of this original idea (150–152, 165–166). The drawing is marked "Exhibit Development Drawing of Seabury Sketches" (271).

As was said by Commissioner Leggett, in Cameron & Everett v. J. R. Brick, C. D., 1871, 89: "It may still need much patience and mechanical skill, and perhaps a long series of experiments, to give the conception birth in a useful working form. The true date of invention is at the point where the work of the inventor ceases and the work of the mechanic begins."

Without regard, then, to the manifest differences of the Canet device as shown in the Sauvèe patent, and the inoperativeness of the Nordenfelt, it must be said that Seabury is justly entitled to the credit of being the first and original inventor of the combination described and secured to him by claim 1 of the patent in suit.

This brings us to a consideration of the state of the art.

State of the Art.

The defendant has proved a number of foreign patents granted prior to the date of application for the Seabury patent, of which, however, only two, the Sauvee English Patent of 1887 and the Nordenfelt English Patent of 1887 require extended comment.

Of the alleged anticipating patents, 13 in number, all but five are British patents, and all but three were granted in or after the year 1887; showing how very recent are the developments in mechanisms of this kind; and it will be found that the three patents earlier than 1887 are all United States patents, and are so remote from Seabury's invention as to be scarcely worth referring to.

The Shenkle U. S. Patent of 1853 has no relation to the Seabury invention. It does not show a single element referred to in claim one, except, perhaps, in a certain form, a mutilated screw. The gun opens in the middle of its length, the breech half is tipped up, and is loaded like a muzzle-loading gun.

In the Cochrane U. S. Patent of 1859,

"The breech-block is provided with a handle permanently attached to it, and by means of which the breech-block or plug is manipulated. To unlock the breech-block or plug from the gun the gunner takes hold of the handle permanently attached to the breech block and applies force in the direction to rotate the block and unfasten it from the gun, and then by a direct pull rearwardly moves the plug, the carrier in which it is mounted, and slide bodily in a rearward direction until, by pulling on the handle in a different direction the plug and carrier can be swung aside on its hinge, connecting it with the slide so as to enable the gun to be loaded." See Mr. Newbury's deposition (129).

The Goodwin United States Patent of 1864 does not, like the Cochrane patent, show or describe any breech-block retractor, and hence does not operate upon the principle of the Seabury patent, and has no bearing upon his invention. See Mr. Newbury's deposition (129).

In the Farcot British Patent of 1887 the breech-operating mechanism is not provided with a device "which is composed essentially of a lever which at one point is hinged to the breech of the gun and at another point connected to the breech block so that through a direct pull of such device upon the breech block through its hinging to the breech and connection to the same, withdraws the breech block from the breech onto the carrier and pushes it therefrom into the breech again by pushing the same through the same hinging and connections as heretofore described.

"A revolving gear wheel meshing with the rack is manifestly not such a device as is required for one of the essential elements or devices of the invention of said claim 1, and therefore this British Farcot patent lacks an essential element or device of said invention,

and such Farcot patent, no matter what else it may show, so long as it does lack one of the essential elements or devices of that invention, can have no bearing whatever upon the invention particularly pointed out in said claim 1 of the patent in suit." See Mr. Newbury's deposition (119).

In respect of the Canet British Patent of 1888, No. 7434, it will probably not be contended by defendant that this patent discloses Seabury's invention. It is enough here to refer the Court to Mr. Newbury's statement concerning it (120):

"It is manifest that this British Canet Patent No. 7434 of 1888 does not contain a breech-block retractor which is composed essentially of a lever, being hinged at one point to the breech of the gun and at another point connected to the breech block so that the breech block is withdrawn in a rearward direction onto the carrier and pushed therefrom by a pulling or pushing action, and, therefore, the said Canet British Patent No. 7434 is unprovided with one of the essential elements or devices of the invention of said claim 1 of the patent in suit. By reason of this fact this Canet British Patent can have no bearing whatever upon the said invention particularly pointed out in said claim 1."

His reasons for this opinion are aptly stated on pp. 119, 120.

The same criticism may be made respecting the Fielding British Patent of 1888. See Mr. Newury's deposition (120–121).

The Winfield & Horn British Patent of 1888 relates to means for handling heavy guns, and shows and describes various forms of hydraulic mechanism for manipulation of cannon generally, but in certain figures of the drawings shows a form of breech-operating mechanism. The patentees state in their specification (pp. 7 and 8) that they sometimes employ the devices of the Farcot patent, the Sauvee patent and the Canet patent, all of which are in evidence in this case and are separately discussed. Therefore, Whinfield & Horn do not require separate mention. See Mr. Newbury's deposition (121).

The Canet British Patent No 7435 of 1888 much resembles the Farcot patent considered above. It has no relation to the Seabury mechanism. It lacks the lever and retractor. A mere inspection of the drawings show the decisive differences in principle and mode of operation. Mr. Newbury says of this patent (124):

"This Canet British Patent No. 7435 manifestly does not show or describe a breech-block retractor composed essentially of a lever which is hinged to the breech at one point and connected to the

breech-block at another so as to withdraw the breech-block from the breech onto the carrier, and push it therefrom into the gun by a direct pulling or pushing action, as before explained. Therefore, this British Canet patent No. 7435 does not contain one of the essential elements or devices of the invention particularly pointed out in claim 1 of the patent in suit, and, consequently this Canet patent can have no bearing whatever upon the invention in said claim 1."

The specific criticisms leading to the result quoted are contained at pages 123–124.

The Sauvee British Patent No. 9813 of 1887 much resembles the Canet patent last noticed. Indeed, the same comment precisely may be made upon it, and Mr. Newbury repeats respecting this patent the criticisms last quoted respecting the Canet patent (125):

"This Sauvee British Patent No. 9813 manifestly does not show and describe a breech-block retractor composed essentially of a lever which is hinged to the breech at one point and connected to the breech block at another, so that the breech-block is withdrawn from the breech onto the carrier and pushed therefrom into the breech by a direct pulling or pushing action as before explained."

The Driggs & Schroeder U. S. Patent No. 360,798 of 1887 derives its principal interest from the fact that this is the gun, which under the advice of Commodore Folger, the Navy Department were intending to use and had contracted for, until Lieut. Seabury exhibited to him his invention (20):

"Commodore Folger then said in his own words, 'Our fences are all up and in good condition; we have a good mechanism now—the Driggs-Schroeder, which will be tried shortly. I will hold this mechanism as an alternate for trial in case of the failure of the Driggs-Schroeder.'"

This Driggs & Schroeder patent has no relation to the Seabury invention. Mr. Newbury said (130):

"This breech block is provided with a slot through which passes a shaft mounted in bearings upon the breech of the gun, and by means of which the block can be made to move upwardly or downwardly upon the shaft, and also when in a downward position upon said shaft to turn sufficiently to expose the breech of the gun. This breech block is locked into the breech of the gun by projections upon the breech block entering suitable recesses provided in the breech of the gun, and the holding action of said shaft in said slot. The breech block is caused to move in various directions to secure

it in place, or to expose the breech for loading purposes, by means of suitable cams and other devices provided for this purpose.

"This Driggs & Schroeder patent does not show and describe any of the devices or elements particularly referred to in claim 1 of the patent in suit; therefore, it manifestly cannot have the slightest bearing upon the invention particularly referred to in claim 1 of said patent in suit."

Respecting the Nordenfelt U. S. Patent No. 384,537 of 1888, a glance at Fig. 3 of the drawings shows one decisive difference between it and the Seabury invention. That figure shows the block dropped down vertically from the breech after it has been withdrawn, and of course it must be lifted up again by main force to the position for being pushed into the gun. This result arises from organization of the mechanism, and indicates a decisive difference between it and the Seabury invention. It will not be contended that this patent shows the Seabury combination. Mr. Newbary said of it (132) that it "does not show and describe a breech-block retractor essentially composed of a lever which is at one point hinged to the breech of the gun, and at another point connected with the breech block, so that the breech block is withdrawn from the breech onto the breech-block carrier, and pushed therefrom into the breech by direct pulling or pushing action, as the case may be. Therefore this Nordenfelt U. S. Patent lacks one of the essential elements or devices of the invention particularly set forth in claim 1 of the patent in suit, and consequently it can have no bearing upon said invention."

The foregoing patents may all be divided into two broad classes.

The first embraces the Farcot Patent, the Fielding Patent, the Whinfield & Horne, the Canet Patents No. 7434 and No. 7435 of 1888, the Sauvee Patent No. 9813, of 1887, in all of which the working of the mechanism is dependent upon a worm gear, and the advantages of a hand lever operating successive levers are not and cannot be combined therewith. The result is that the mechanism is operated with great slowness in all its successive steps, and is not adapted to rapid-fire guns. It is quite possible, and sometimes desirable, to avail of the greater power which a screw affords compared with the pull of a hand lever, but this should be confined to the initial exertion of power, as is illustrated in the Seabury mechanism shown in Figs. 2 and 3, of his patent No. 479,957, and this also illustrates the difference in principle and mode of operation which distinguishes the Seabury mechanism of the patent in suit, and its

immense superiority over preceding mechanisms, in that, while preserving the rapidity of motion arising from the employment of levers, they may be combined with a screw for affording initial power.

The other class comprises a miscellaneous collection of devices, none of which approach the Seabury patent. They are the Shenkle, which opens in the middle, and is then a muzzle loader; the Goodwin, which is closed like a rat hole; the Cochran, which opens on the side; the Driggs & Schroeder, which drops the wedge block, and all of them absolutely useless for modern ordnance, excepting the last, which are useful for small guns, but are not in the same class as the screw-block guns to which the Seabury patent relates.

Two other patents require more extended comment—the British Sauvee Patent No. 9453 of 1887, and the Nordenfeldt British Patent No. 9195 of 1887—as upon these the defendant will probably place his main reliance.

Respecting the Sauvee British Patent, issued upon a communication from Canet, No. 5493 of 1887, it is to be noted that this patent had been published in England more than a year prior to Seabury's application, and, therefore, was in the art; but was not referred to by the Office, although its existence must have been known, because American application by Canet for the same invention, No. 447,228, was in the Office at the same time as Seabury's application.

It is to be noted that in this patent the breech block is of *conical* form, and not cylindrical, as in Seabury. This conical form is not a mere preference of the inventor, or a mere incident or accident of construction. In the Sauvee or Canet construction the block must be conical in order to be practically operative. The result of this is that the breech of the gun adapted to a conical form of block is much weaker than a gun the breech of which is adapted to the cylindrical form of block, because in the former the mass of metal in the breech of the gun is materially less; and the conical form, enlarging toward the rear, does not permit the screw threads to take the same hold of each other at the same angle of greatest resistance to the rearward thrust of the discharge which the cylindrical block affords.

The Sauvee Patent.

It is true that the Sauvee patent shows in figure 6 a cylindrical block as an alternative form, but it is not shown in working relation to the breech, and the evidence is that the mechanism would be unpractical, if not inoperative, when used with a cylindrical block. This evidence is not contradicted in any way, and it is substantially conceded that *the only practicable form* of this Sauvee or Canet *has a conical block.*

The drawing of this patent will be found opposite page 325.

The operation of the Sauvee mechanism is fully explained by Mr. Newbury in the record (125–128), to which we respectfully refer the Court, but will state here the substance of Mr. Newbury's explanation of the operation and the criticism thereon. In this statement we will refer chiefly to the successive shifting points on which the levers turn. From this variation in the fulcrum point arises the chiefest objection to the mechanism, and it is in this feature that it differs essentially in principle and mode of operation from both the Seabury construction and the Dashiell. This difference is so apparent upon mere inspection of figure 2 of the Sauvee drawings that just here, for the sake of simplicity, we may disregard the manner of the working of the levers in the slots provided as guides for the levers, excepting as they relate to the shifting of the pivotal points.

Premising that in Sauvee in opening the breech the lever moves from right to left, it will be seen that the first pull of the lever turns it on the pivot *c*, whereby the block is unlocked into a position for withdrawing, but the lever is a sort of a bell-crank, and when it is turned on *c*, so as to unlock the block, *i*, working in the slot, has shifted its position so as to be at the end of the slot at the place *h*. Further pull of the lever causes the lever to turn on *i* as a pivot, the end of the slot at *h* then being the fulcrum, and by this motion the block is withdrawn onto the carrier. Further pulling of the lever causes it to turn on C as a pivot, the breech of the gun here being the fulcrum, and turning on this point C the block is carried out of the way and exposes the breach for reloading.

Now, respecting the sliding of the movable pivot *i* within the slot while the block is being turned for unlocking, and so that the pivot *i* may reach its fulcrum position, Mr. Newbury says (126):

" When the breech block is withdrawn from the breech so as to rest wholly upon the carrier, or is to be pushed therefrom into the

breech, there is a sliding frictional contact between the parts which connect the breech block to the carrier, and the carrier itself, and the extent of the frictional contact is necessarily considerable, and, therefore, a slight amount of dust or foreign matter entering in between these contacting surfaces would render the mechanism very hard to work, if not entirely to disable it."

And this is important, because the obstruction to smooth working is very liable to occur in field artillery, as already described, and this obstruction occurs at a time in the operation of the most importance, because it is during this sliding of pivot *i* in the slot that the block is to be unlocked, and at the unlocking moment the block has become heated and perhaps strained from the explosion, and the utmost power required at any time during the entire operation must be exerted at this precise time.

Now, it is apparent that this Sauvee construction does not show a breech-block retractor composed of a lever which is hinged at one point to the breech of the gun and at another point connected to the breech block, so that the breech block is withdrawn from the breech onto the carrier. If the lever connected to the shaft should be termed generally a breech-block retractor, then such breech-block retractor would not be hinged to the breech at one point and connected to breech block at another point, and the most that could then be said would be that it was hinged to the breech block itself, so as to partake of the movements of the breech block when such block is moved from the breech of the gun.

Such a breech-block retractor is not the breech-block retractor which is an essential element or device of the invention particularly recited in claim 1 of the patent in suit, and, furthermore, it does not have the principle or mode of operation, nor does it possess the advantages of the breech-block retractor shown and described in the patent in suit, and particularly referred to in claim 1 thereof.

The Sauvee device lacks the element of the Seabury claim, in that it has no breech-block retractor hinged to the breech separate from said carrier, to move independently of said carrier, to draw the breech block thereinto.

Now, for reasons which have already been stated, it is desirable to use a breech block of cylindrical form.

Fig. 6 of the Sauvee patent shows a cylindrical block; but it will be observed that, although the breech and the block of that figure are only half the size of the breech and block of figure 1, yet

the mechanism and parts for rotating and withdrawing and carrying away the breech block in Fig. 6 extend rearwardly from the breech nearly as far as the corresponding mechanism of Fig. 1, where the breech and block are twice the size (325). That is to say that, if, for a conical block, the mechanism in the rear extends back, say, 18 inches, if a cylindrical block is used, this mechanism would extend rearwardly nearly three feet.

This point has been carefully worked out in the drawing produced by Mr. Newbury in Complainants' Exhibit Enlarged Drawing Figure 6 Sauvee patent, in which the working mechanism of figure 1 of Sauvee has been applied to cylindrical block of figure 6. The drawing will be found between pages 270 and 271. In this drawing the successive positions of the breech block, the successive position of the successive pivots, and the actuating lever are clearly shown. An examination of these several positions discloses the fact that the handle of the lever is moved to the left more than three times the length of the lever between the handle and the point where it is secured to the shaft. Now, this is entirely unpractical in the management and manipulation of a rapid breech-loading gun in action. The gunner would be obliged to take a position too far away from the breech to enable him to grasp the lever handle in its position before movement with the power requisite to unlock the block, or he would be obliged to trot around the breech during the entire movement of the lever handle. Applying this mechanism to a 4-inch gun, the lever handle would probably have a sweep of five or six feet or more. The lever would be in a gun of that size eighteen inches or two feet, if not more, and this would make a sweep of more than six feet. It must also be borne in mind that there must be very powerful leverage in order to rotate the block, and that the tendency of the explosion is to cause the gas check of the block to expand and stick, and therefore the first attempt at rotation in unlocking the block is to overcome the tendency of the gas check after discharge to adhere to the walls of the gun.

But we have already seen that the cylindrical screw-block is the only true screw-block. It was the screw-block known to the art and in common use. It was the screw-block which all the various inventors were trying to handle, and is the block described, intended and illustrated in the patents of both Seabury and Dashiell, as it is in all the other inventions and devices referred to in the proofs, excepting that of Armstrong, and this of Canet or Sauvee. And we have seen that other inventors were baffled by the problem, and

driven to various forms of wedge blocks, while Armstrong and Canet were forced to conical blocks—screw-blocks in name only, and not in fact—in order to get a mechanism which would work at all.

This being the case, it is obvious that an invention which is compelled, in its efforts to attain operativeness, to abandon the screw-block as known to the art—the only true screw-block, the mutilated or interrupted cylindrical screw—and to adopt a new form and character of block, which is not a screw-block at all, and never could be constructed by the mutilation of a real screw, and bears only a factitious and illusory resemblance to a real screw,—it is obvious, we say, that such an invention is wholly distinct and different from one which has overcome the difficulties of the true screw-block as known to the art—the mutilated cylindrical screw, and which successfully accomplishes the three motions required, with that block.

One inventor has succeded where the other has failed. Seabury has conceived and matured a device which meets all the conditions of the problem presented, viz., the handling of the well-known screw-block which had been in common use for years. Armstrong and Canet failed in the effort, and were obliged to modify the conditions of the problem by resorting to a change in the block itself, a change as vital in principle, if not as conspicuous to the eye, as the change to a wedge-block, to which other students of the same problem were driven.

Consider for a moment what this means. Inability to handle the cylindrical screw-block means inability to withdraw or *retract* the block through the necessary distance, keeping its axis coincident with the axis of the bore of the gun. That is precisely what the Seabury invention does accomplish, with its *retractor* hinged to the breech. Seabury was the first who did it, and Dashiell the second. And Dashiell's experts confess that if Seabury was the first, then Dashiell was an infringer.

Both Com. Folger and Prof. Alger testify that the Canet mechanism was known to them. The former had, in 1887, seen in Paris in the inventor's office a gun containing it (46). It is at least a fair inference that our ordnance officers had not adopted the Canet system because of the deficiencies which we have pointed out, or any suggested in the foreign patents to which reference has been made, and had in preference to any of these determined on the Driggs-Schroeder mechanism. But as soon as Lieut. Seabury presented his model, it was at once recognized as a practical solution of the cylin-

drical block problem, and a speedy test of his device was promised, and he was requested to furnish drawings to enable such test to be made. After this, and while Seabury was awaiting the result, Dashiell designed and brought forward his own device, which was also for a cylindrical block, and the Ordnance Bureau adopted it.

It is a well-recognized principle that the fact that a device has, upon being presented to the world, been accepted and gone into general use, is evidence of invention, and in case of doubt as to the quality and importance of the inventive act will turn the scale in favor of the patent. That rule is applicable here, considering that practically our first, if not our only, market was our own Government.

Upon this point see the following decisions :

Krementze vs. S. Cottle Co., 148 U. S., 557.
Magowan vs. N. Y. Belting Co., 141 U. S., 332.
Topliff vs. Topliff, 145 U. S., 156.
Barbed Wire Patent, 143 U. S., 275.
Gandy vs. Main Belting Co., 143 U. S., 587.

In *Keystone Manufacturing Co. vs. Adams*, 151 U. S., 139, the Court says :

" When in a class of machines so widely used as those in question, it is made to appear that at least, after repeated and futile attempts, a machine has been contrived which accomplishes the result desired, and when the Patent Office has granted a patent to the successful inventor, the courts should not be ready to adopt a narrow or astute construction to the grant."

The Nordenfelt Patent.

Little would need to be said respecting the Nordenfelt British Patent No. 7195 of 1887, were it not for the fact, that the defendant in the Court below relied almost entirely upon it.

One answer to this patent is, that it does not describe an operative mechanism.

Defendant produces a large model of the breech mechanism of this patent *made from the drawings of the mechanics of the Navy Department, under the supervision of its draughtsmen, and the model is incapable of working ;* and this is admitted by Mr. Worsey, the mechanical draughtsman of the Navy Yard Department, who prepared the working drawings from which the model was made under the direction of the chief draughtsman, and by Mr. Hough, who was the

master mechanic of the workings of breech mechanisms at the same place, and himself had charge of the construction of the model. This model contains upon it written directions for working it, as follows (235) :

" FIRST. In opening press against rear end of tray at A till tray is ready to swing.

" SECOND. In closing press against tray at same point A, and *swing the tray by this pressure rather than by the hand lever, otherwise the plug will slip on the tray.*

" THIRD. WORK SLOWLY."

Note that the model is to be worked, not by the hand lever, but by pressing or pushing some other part, and it is to be worked *slowly*, although intended for a rapid-fire gun. This model was made for the express purpose of demonstrating that the invention was a practical one, and to support Messrs. Bartlett and Dodge in their opinion that it was practical and would work if reduced to practical from. It was made by skilled workmen in the employ of the Government at the shop which deservedly has the reputation of turning out the best work in this line that can be found in the world.

After the evidence on this Nordenfelt patent was in on both sides, Mr. Durfee, a mechanical expert, was called by defendant to show that it could be made to work by some modifications not shown or suggested in the patent itself, but these modifications do not improve the construction in the slightest degree, because they would be fatal defects in the working of the gun, and would be inadmissible.

That the Nordenfelt patent is without effect upon the Seabury invention would seem to follow from the fact that the two experts from the Navy Yard, Messrs. Worsey and Hough, were unable in following the Nordenfelt specification and drawings to make an operative structure, although what they did make and produce is of the natural size. The actual result of their study and labors is more cogent evidence of the insufficiency of the Nordenfelt patent than the opinions of any number of experts could be. They were skilled in the study of drawings and the construction of mechanism therefrom and perfectly familiar with the subject of breech-loading cannon. With every desire to produce an operative mechanism *they succeeded in producing only a structure which does not permit the breech to be closed.* Suggestions by later comers that this,

that or the other defect in the Nordenfelt design could be remedied by this, that or the other expedient would seem to be, under the circumstances, impertinent.

Inoperativeness of the Nordenfelt Device.

Upon this point the learned Circuit Court said (362–363):

"A full size model made after the drawings and description contained in this patent has been produced by the defendant, and if the model is to be taken as correctly exhibiting the device it is not an operative machine.

"It appears to have inherent difficulties in the adjustment of the retractor and the carrier which, even if defects in the construction of the present model were remedied, would seem to stand in the way of its being useful as a piece of ordnance to be rapidly fired under excitement.

"It does embody an attempt to solve the problem of how, by a continuous swing of a hand lever, the breech block can be quickly withdrawn and turned aside, and after the cartridge has been inserted can, by reversing the lever, be returned to its place; but it does not solve that problem, and, moreover, it lacks one essential of Seabury's claim, namely, the retractor is not separate from the carrier and does not move independently of the carrier.

"The difficulty of operating the model seems to arise from the dependence of the retractor and carrier on each other and because the retractor is not separate from the carrier and from the extremely nice adjustment required in the mechanism designed to move one without interfering with or obstructing the other, the two not being independent and separate."

The inoperativeness of the said model arises from the fact that there is no means provided for returning the breech block to the breech of the gun otherwise than by the old hand process.

And this arises from the defect noted by the learned Circuit Court that there is no retractor *separate* from the carrier and moving *independently* of the carrier. It is not of special moment to find and state precisely just why the Nordenfelt gun does not and cannot operate. The experts differ as to the reasons of its inoperativeness, and whether or not the Circuit Court in its opinion has assigned with absolute accuracy the right reason is immaterial in view of the uncertainty of the experts among themselves, the inability of

two of them to discover the reason, and the suggestion of a third to supply a piece of watch-spring which may make the model work, but in a gun intended for practical use would be of course inadmissible. The Circuit Court, however, has really stated the true reason for its inoperativeness. The main thing is the fact that it does not operate, and that for a reason which is a necessary result from a defect in the principle of its construction.

Mr. Durfee's Proposed Remedy.

The demonstration by this Nordenfelt model of the inoperativeness of the Nordenfelt design, as shown by the patent, would seem a sufficient answer to any claim which the defendant could set up by virtue of that patent were it not that the defendant has endeavored, with the aid of Mr. Durfee, to show that this model which does not work, and will not work, could be made to work by some addition not partaking of the character of an invention. And it is to this end that Mr. Durfee conceived his device of inserting a thin slip of metal between the two sliding surfaces of parts which in the model, as constructed according to the patent, are wholly inoperative, by Mr. Durfee's own admission, both in opening and shutting the block.

The idea of Mr. Durfee is that by introducing a sufficient degree of friction between these two sliding surfaces they can be prevented from performing their normal function of sliding over one another until the other work of mechanism is done, and then the application of force in increased quantity to overcome this increased friction would enable the surfaces to slide over one another and so complete the movement. That is, under Mr. Durfee's idea, the machine is to be made to work by such a nice adjustment of friction and frictional resistances as to have friction alone determine which function shall first be performed and which last. For this purpose he suggests as a permanent addition to the device in place of the thin strip of metal between the surfaces of the sliding parts a friction washer governed by a set screw, in various positions, using the set screw to adjust the friction at the precise point where it will be sufficient to prevent the sliding of the two surfaces until the other functions of the mechanism had been performed in the proper order, and then would be overcome by increased power so as to permit the surfaces to slide.

The foregoing, we think, frankly states Mr. Durfee's suggested improvements, and as to them Mr. Newbury makes the following criticisms, which, we believe, will commend themselves to the Court:

The adjustment of the nice balance of friction so required is so delicate that it would be impracticable to employ it and to maintain the conditions of use of breech-block operating mechanisms.

Such mechanisms have to withstand the great shock and jar of the explosion of the cartridge, which is sufficient to break parts of the gun which receive none of the direct blows of the discharge, if they are not made of the strongest material. Such shocks and jars would be destructive to any such nice balance or adjustment of frictions.

The heat of the discharge, and discharge rapidly recurring, will cause the different parts to heat unequally, producing unequal expansion of the different parts, and this would result either in causing the two sliding surfaces to become immovably fixed to each other, or to become so loose as to become inoperative in the same way as before this friction was applied.

The entrance of dirt, dust or gritty substances between the working surfaces, as is inevitable under the conditions of actual battle, would upset this nice balance of friction, and render the mechanism inoperative.

The excitement of a battle would tend to lead the men manipulating the mechanism to work it more quickly and violently, and thus to apply the increased force necessary to overcome the friction before it was required, and this would render the whole inoperative.

And if, after the gun had become foul, a fresh cartridge should stick and require a little additional force to push it into the gun, this additional force would overcome the balance of friction, the sliding parts would slide too soon, as they do in the normal condition of the Nordenfelt model and device, and thus become wholly inoperative.

This Mr. Newbury shows with great clearness, and we refer the Court to his testimony (256–258). He then goes on to say (258) :

" Because of all these facts, each and every one of which seems to have been entirely overlooked, I am clearly of the opinion that a breech-block operating mechanism constructed so that the parts would fit and have the fine degree of adjustment or balance of friction set forth by Mr. Durfee would be wholly inoperative when put into use in battle.

" I am familiar with all the ways of producing friction mentioned by Mr. Durfee, and especially those illustrated in his sketches mentioned in his testimony, and I may say that I have known them for over thirty years. I never knew of any piece of machinery where it was designed to secure two pieces together, so as to move as one

part a portion of the time and then to separate and move as two parts, which was accomplished by the means of any of the devices mentioned by Mr. Durfee. I have carefully read Mr. Durfee's deposition, and he nowhere points out an instance of the use of the means referred to by him in any such case as just described, and which is at all analogous to the case of the Nordenfeldt model. It is true that in lathes, milling machines and other places such devices are used as referred to by Mr. Durfee, but in no such case known to me are the parts connected together to move as one part a portion of the time and then are to become disconnected and move as separate parts in any of those machines. In fact, it is misleading to say that these devices referred to by Mr. Durfee are used for producing friction, although they do in fact cause friction as do any two parts which are brought in close contact one with the other. So far as I know, they are used to make what mechanics call a 'close fit'—that is, a fit between two parts which will hold the movable part steady or as nearly rigid as possible and yet permit it to move. Such a fit cannot be maintained in breech-block operating mechanisms by the use of the devices referred to by Mr. Durfee. In other words, if such devices are used to produce friction, they are used to produce an equal amount of friction throughout the movement of the parts with which they are used, and not counterbalance of friction, as is necessary in the case of the Nordenfeldt model."

Mr. Durfee's Criticism of the Seabury.

Mr. Durfee, to lessen the offence against sound construction and useful invention of the Nordenfelt patent and model, charged that the Seabury device was also dependent upon a nice adjustment of friction surfaces (255):

"Q. Now, you spoke, on your re-direct examination, of the operation of the mechanism shown by the Seabury patent in suit, with reference to the part which friction played in that device. Are you to be understood as expressing the opinion that the Seabury device depends for its successful working on a counterbalance of one friction against another?

"A. It does; most decidedly.

"Q. In other words, it depends upon the preponderance of friction in one direction, rather than another, to cause the different operations to take place in their proper order?

"A. Yes, sir.

"Q. That is your judgment of the mechanism shown in the patent in suit?

"A. Yes, sir.

"Q. And I understand you to say, in your judgment, that is true of the Seabury device as it is of this Nordenfelt patent No. 7195?

"A. Yes."

Mr. Newbury's comment upon this criticism is as follows, and we think is ample refutation to what Mr. Durfee says, and an inspection of the Seabury patent and model bears him out. It may be noticed in this connection that Mr. Durfee was the first among all the experts and practical gunners who have had to do with the Seabury gun to discover this alleged feature (260–261):

"I do not agree with Mr. Durfee in any such opinion. The portion of the re-direct examination of Mr. Durfee referred to in the first question just quoted I understand to be that where he attempted to describe the breech-block operating mechanism shown and described in the Seabury patent in suit. By turning to Mr. Durfee's testimony upon this point, it will be seen that he failed to mention the fact that the Seabury patent showed and described different forms of mechanism by means of which the invention of that patent could be carried out. Mr. Durfee refers only to the form of mechanism shown in Figs. 1 to 6 of the patent in suit, and he is entirely silent as to that form of device shown in Figs. 7, 8 and 9 of that patent. In my former deposition in connection with the criticisms made by the defendant herein upon the Seabury patent in suit, I referred to these two forms of mechanism at length. The form of mechanism shown in figures 8 to 9 of the patent in suit contains a positive locking device by means of which the crank arm and the breech-block retractor are positively locked together, so that during the desired portion of time that they shall move as one they are positively locked together, and at the time they are to separate and one move independently of each other they are positively unlocked. This form of mechanism is shown in Complainant's Exhibit Model D, an examination of which shows the fact to be as above stated.

"The form of mechanism shown in figures 1 to 6 of the patent in suit is one which is not at all dependent upon the adjustment of two or more fixed or immovable working surfaces, as is the case with Mr. Durfee's *suggested* Nordenfelt device. Nor is it one which would be rendered inoperative under any of the conditions which would

render Mr. Durfee's *suggested* Nordenfelt device wholly inoperative, as explained by me in a previous answer. For instance, the Seabury mechanism would be just as operative, and would not be to any material extent affected by the unequal expansion of the parts of such mechanism by the heat caused by the explosion of the cartridge.

"It would also not be rendered inoperative or be materially affected by the shocks and jars caused by the discharge of the gun.

"It would not be rendered inoperative or be materially affected by the presence of dirt, dust or gritty substances thrown into the mechanism during use when in battle.

"Again, it is one which would not be rendered inoperative or be materially affected by the use of the same by men when under the excitement of battle.

"The spring referred to by Mr. Durfee, and which he says is essential in its operation, can be made of any desired strength and tension for any desired use, and because of this fact the crank arm will not become disconnected from the retractor, until the breech block and carrier are positively stopped against further movement. Tha spring in the Seabury mechanism of Figs. 1 to 6 permits the two working surfaces to yield or move relatively to each other so that any dirt or gritty substance cannot materially affect the working of the parts. For this same reason the working of the parts cannot be materially affected by the unequal expansion of the parts by the heat generated by the discharge of the gun, or from the shocks or jars also caused by such discharge. It is true that the spring causes friction between the parts, but, while this is the case, it is not that character of friction which is produced by the introduction of the thin piece of sheet steel in the model of the Nordenfeldt mechanism, or which would be produced by any of the suggested ways of adjusting the friction between the bolt *m* and arm *k*. The device illustrated in Figs. 1 to 6 of the Seabury patent in suit, and to which Mr. Durfee directed his attention, is one adapted for use under the conditions which prevail in breech-block operating mechanisms of rapid-fire guns, while the introduction of a thin piece of sheet steel in the Nordenfelt model, or any construction of that model suggested by Mr. Durfee, would be wholly unfitted for that purpose, and would of itself render such a mechanism inoperative and utterly worthless, and for the reasons heretofore stated."

Rule for Construing the Nordenfelt Patent.

The Nordenfelt British Patent is not to be construed as a United States patent would be, with a presumption of utility in its favor, derived from the grant of the patent. It ranks as a publication only. A United States patent has a presumption of novelty and utility in its favor; because, here, applications for patents undergo preliminary examination in both respects. For this reason presumption in its favor arises. There is no presumption that the British law is the same as our law, because our law is purely statutory. It is well known that British patents undergo no examination in respect either of novelty or utility. That a British patent is to be regarded as a publication, see *Cohn vs. U. S. Corset Co.*, 12 Blatch., 225; *Coburn vs. Shroeder*, 11 Fed. Rep., 425. A prior foreign patent which is not accessible to the public, but remains in the secret archives of the Government issuing it, or which is not accompanied with a description, does not anticipate a United States patent; see *Robinson on Patents*, Section 333.

But whether a British patent is to be construed as a publication or not, the rule applies to it as well as to a publication in a book, that it must describe a complete and operative art, or instrument, in order to affect a United States patent.

The adjudications on this subject are very numerous. They are summed up in Prof. Robinson's work, Section 325, in which he states, among the requisites of such a publication, that it must be a description of the same complete and operative art, or instrument, and so precise and so particular that any person skilled in the art to which the invention belongs can construct and operate it without experiments, and without further exercise of inventive skill.

In *Seymour vs. Osborne*, 11 Wall., 516, Judge CLIFFORD said (p. 555): "Whatever may be the particular circumstances under which the publication takes place, the account published, to be of any effect to support such a defense, must be an account of a complete and operative invention, capable of being put into operation."

In *Cahill vs. Brown*, 15 O. G., 697, the same learned Judge said: "Inventions patented here cannot be superseded by the mere introduction of a foreign patent or publication, though of prior date, unless the description or drawings contain or exhibit a substantial representation of the patented improvement in such full, clear and exact terms as to enable any person skilled in the art or science to

which it appertains, without the necessity of resorting to experiments, to make, construct and practice the invention as he would be enabled to do from a prior patent for the same invention."

And the prior patent or publication must furnish a description, informing, to the degree stated, the ordinary workman using that amount of skill and intelligence which is fairly to be expected from him; see 3 *Robinson on Patents*, p. 452.

The rule laid down by the Supreme Court in *Coffin vs. Ogden*, 18 Wall., 120, 124, is as follows:

"The invention or discovery, relied upon as a defense, must have been complete and capable of producing the result sought to be accomplished; *and this must be shown by the defendant. The burden of proof rests upon him, and every reasonable doubt should be resolved against him.* If the thing were embryotic or inchoate; if it rested on speculation or experiment; if the process pursued for its development had failed to reach the point of consummation—it cannot avail to defeat a patent founded upon a discovery or invention which was completed, while in the other case there was only progress, however near that progress may have approximated to the end in view. The law requires not conjecture, but certainty. If the question relates to a machine, the conception must have been clothed in substantial forms, which demonstrate at once its practical efficiency and utility *(Reed vs. Cutter*, 1 Story, 590*)*. The prior knowledge and use by a single person is sufficient. The number is immaterial *(Bedford vs. Hunt*, 1 Mason, 302*)*. *Until his work is done the inventor has given nothing to the public.*"

"He is the inventor, and is entitled to the patent who first brought the machine to perfection and made it capable of useful operation."—*Agawam Co. vs. Jordan*, 7 Wall., 602.

As stated in the head-note in *Whitely vs. Swayne*, 7 Wall., 685: "Where a patent has been granted for improvements, which, after a full and fair trial, resulted in unsuccessful experiments, and have been finally abandoned, if any other person takes up the subject of the improvements, and is successful, he is entitled to the merit of them as an original inventor. He is the first inventor, who, being an original discoverer, has first *perfected* and *adapted* the invention to actual use."

The rule respecting alleged anticipations contained in publications or patents, is the same as that applied to prior machines, and respecting the latter we cite:

In *Aultman vs. Holley*, 11 Blatch., 333, Judge WOODRUFF says:

"The suggestion that where such experiments are made without resulting in a useful machine, and the product thereof is abandoned on that ground, whatever devices it contained became public property, and can be dug up in after years and produced to defeat the patent of an independent and successful inventor, is not, I think, sound or warranted by the law."

In *Parkhurst vs. Kinsman*, 1 Blatch., 494, Justice NELSON says:

"To constitute a prior invention, the party alleged to have produced it must have proceeded so far as to have reduced his idea to practice, and embodied it in some distinct form. It must have been carried into practical operation, for he is entitled to a patent, who, being an original inventor, has first perfected and adapted it to practical use. Crude and imperfect experiments, equivocal in their results, and then given up for years, cannot be permitted to prevail against an original inventor who has perfected his improvement and obtained his patent."

In *Cox vs. Griggs*, 1 Biss., 364, there was a contest between independent inventors, and it was held by Judge DRUMMOND that:

"It is necessary, in order to prevent a man from having the benefit of his patent, that another person should first have discovered the thing and reduced it to actual practice."

In *Ellithorp vs. Robertson*, 4 Blatch., 309, 310, Judge INGERSOLL held:

"To constitute such a prior invention as will avoid a patent that has been granted it must be made to appear that some one before the patentee not only conceived the idea of doing what the patentee has done, but also reduced his idea to practice. * * * In a race of diligence between two independent inventors, he who first reduces his invention to a fixed, positive and practical form has a priority of right to a patent."

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"Courts of justice have established the rule that crude and imperfect experiments, equivocal in their results, and then abandoned, shall not be permitted to prevail against an original inventor who has perfected his improvement and obtained his patent. The settled rule is that it is not enough to defeat a patent to show that another conceived the possibility of effecting what the patentee has accomplished, unless it also appears that he reduced what he conceived to practice in the form of an operative machine."

In *Cahoon vs. Ring*, 1 Cliff., 609, 610, the same Judge held that an abandoned experimental machine could not be dug up to answer the purposes of an anticipation.

The following are among other cases to the same point:

Fay vs. Allen, 24 F. R., 804.
Putnam vs. Hollender, 6 F. R., 882.
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Nordenfelt Left the Field Open.

The Nordenfelt patent does not fulfill this condition. It may be conceded that the Nordenfelt patent shows a mechanism containing the carrier hinged to the breech, and even a retractor hinged to the breech, but that is not enough. Claim 1 of the Seabury patent requires, in respect to the retractor, not only that it shall be hinged to the breech or the equivalent thereof, but that it shall be "separate from said carrier, to move independently of said carrier, to draw the breech block thereinto and push it therefrom, and capable of moving with said carrier while the breech block is therein." The Nordenfelt retractor does not and cannot so act, as is conclusively demonstrated by the model, which is a natural size construction for a four-inch gun. The mentioned elements of the Seabury combination are, in the Nordenfelt construction, so combined with other elements mentioned in the Seabury claim, or so necessarily construed into the claim to make the combination operative, as that in the Nordenfelt there is no practical co-operation. The Nordenfelt device is neither practical nor useful. It left the field open for Seabury's invention, and has no effect upon the latter. If the elements were combined in the Nordenfelt as they are in the Seabury patent, or in an equivalent manner, the former would work.

The Nordenfelt model was made from drawings which were made by Mr. Worsey, mechanical draughtsman in the Washington Navy Yard for four years, and having charge principally of breech mechanism. The drawings were made "in accordance with that specification," *i. e.*, the Nordenfelt specification, and were "accurate representations of the specification" (231–232). The drawings were turned over to Mr. Hough, master mechanic of the breech mechanism

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in the Washington Navy Yard. He said of himself that he was "a skilled man in regard to breech mechanism for cannon," and was "an expert in such matters." He then testified as to the exact correspondence of the Nordenfelt model with the drawing (234).

"A. From May to June this present year the drawings were sent to me from the Ordnance Office to make a model of the mechanism in conformity with the drawings, and I made the model which you see from those drawings; that is, I had charge of the work.

"Q. Does that model represent the drawings accurately?

"A. Yes, sir.

"Q. Mr. Hough, have you any remarks to make about that machinery; do any occur to you in your line of business as an expert?

"A. It is not a practical working mechanism as it stands.

"Q. In what respect is it not?

"A. In two respects. One is there is no latch to hold the tray to the gun, and also keep the plug on the tray when the plug is withdrawn. It has a positive motion—what I call that—coming out, unlocking and withdrawing the plug, but in returning the plug the friction on this dove-tail slips and lets the mechanism close without shoving the plug home to its place.

"Q. What have you to say, if anything, about that slipping?

"A. Nothing to say, only that it will not work that way practically; to use on board ship or for service it is no good. There will have to be some different arrangement to prevent that slipping.

"Q. How would that be effected?

"A. Now, for a positive answer to that I would have to try to see what I could do with it. To sit here and look at it I might say it could be done. I think it can be done. A preventive can be found to stop that slipping and make the mechanism work.

"Q. What would that be in the nature of?

"A. It would be in the nature of a cam.

"Q. Where?

"A. The idea I have now would be on the tray; that is what I would try first. If that did not work I would have to take some other scheme.

"Q. You think it would require a mechanical addition in the way of a cam?

"A. Yes, sir."

On cross-examination he testified (235):

" Q. And as it stands it is so to the best of your knowledge and belief ?

" A. To the best of my knowledge and belief it is an exact reproduction of those drawings.

" Q. You have not directed any change to be made upon the machine shown by the drawings of Mr. Worsey ?

" A. No, sir ; not one iota.

" Q. And I understand you to say that the machine made in exact conformity with such drawings is not a practical working machine as it stands, being so made ?

" A. Yes, sir.

" Q. And in order to make it practical it requires some further invention on the part of yourself or somebody else to overcome what you deem to be the obstacles to its working ; is that so ?

" A. Yes, sir.

" Q. And you have suggested a scheme which you think might overcome those obstacles, but have not tried that scheme to see if it would work in practice ; is that so ?

" A. That is right.

" Q. And if you did not discover that that scheme would work in practice or did not discover some other scheme which would make it work in practice, then your conclusion would be that so far as you are able to say the machine would not work at all ; is that so ?

" A. That is so."

Testimony more conclusive could not be elicited against the Nordenfelt contrivance. Increasing the friction of the bolt in the slot or guide-way did not occur to him, or if it did, he did not mention it or he thought that that method of improving the operation was so unfit as not to deserve mention.

Mr. Hough conceded that the Nordenfelt device could not be made operative without further invention.

Now, Mr. Durfee suggests that the friction of the bolt in the slot or guide-way be increased in or at a particular point in the movement by one and a half thousandths of an inch. We will not repeat here the criticisms made by Mr. Newbury upon this mode of improving the Nordenfelt device. He fully sets forth the matter on pages 260 to 262 of the record, and we submit that his criticisms are substantially founded on common sense. It might be that the friction may be so adjusted that the mechanism would operate to close the breech for a few times, but this would be a

mechanical feat and not practical operation. It is apparent that any friction at the place indicated must be such as to permit at certain times in the operation, sliding, and such friction would necessarily be overcome by starting the movement of the hand lever suddenly. The obstacle caused by friction to the sliding of the bolt would be counteracted by the force exerted to overcome the inertia of the solid steel.

This defect is said to be caused by a variation between certain dimensions of the collar which is dimensioned in the Hough drawings, but it does not appear that this variation is not owing to a defect in the drawings of the patent, and it is not plain what Nordenfelt intended; but the deadly criticism is, that the principal on which the Nordenfelt device was intended to operate was faulty, and is not adapted to practical operation. The prinicple is incapable of improvement; whether the cam suggested by Mr. Hough would improve it or the alternative improvement of the nut suggested by Mr. Durfee, would improve it, does not appear; but either change would be experimental. The use or advantage of them is not obvious. They would have to be tried as Mr. Hough says in respect to the cam, and if he found that it did not work he would try something else. The Nordenfelt patent, for the reasons urged, must therefore be disregarded, and it does not limit or affect the Seabury patent.

It must be borne in mind that in the Nordenfelt patent the retractor is not merely the arm which is connected with the breech block; it is also composed of the other parts which co-operate with it to perform its function, and its function is to withdraw the block and push it back, and to move independently of the carrier, and to be capable of moving with the carrier while the breech-block is in the carrier, all at the proper times successively to unlock, withdraw, carry away, return, push back and *lock again*. No step can be omitted. Each one is as essential as all the rest.

Thus it is fully and satisfactorially established that this Nordenfelt patent describes an inoperative structure, and as such it cannot avail the defendant for any purpose. The field was as open to Seabury or to any other inventor, as if that patent had never existed. It is not intimated that Seabury had any actual knowledge of this, or of any of the foreign patents which have been put in evidence. But if he had known of this, so far from being a help, it would rather have been a hindrance, because it would have suggested that the problem could not be solved in that way and would

have discouraged him from attempting it. Nordenfelt did not make an invention because he did not describe or invent operative means to a desired end; and therefore he could not exclude others from the field which he had not entitled himself to occupy.

Thus the defendant has not only failed to fulfill the requirements of the rule for construing this Nordenfelt patent, but he has succeeded in demonstrating affirmatively that it did not describe an operative mechanism. It has not been pretended that any gun was ever made with such a mechanism, or that any attempt was ever made to put it to practical use. The invention or publication had made so little impression that it was not mentioned in defendant's answer in the list of alleged anticipating devices therein enumerated, but was apparently dragged to light afterwards from the oblivion into which it had fallen, in the search for something which could serve the purpose of invalidating the claim allowed by complainant's patent.

The Same Rule of Construction applies to All Foreign Patents.

It is hardly necessary to add that these same considerations apply with like force to the other foreign patents which have been referred to. The burden of proof is cast upon one who relies upon a foreign patent or a foreign publication to show affirmatively and by positive evidence that the patent or publication describes an operative machine, and one which is useful. There is no presumption in favor of a foreign patent or publication, and its mere exhibition does not establish operativeness. But a United States patent is presumed to describe a useful organization, because the Patent Office is charged with the preliminary examination of the invention, has jurisdiction to grant a patent only for a new and useful improvement, and, having granted a patent, it must be presumed that the forms of law and the conditions of the statute have been complied with.

Now none of the witnesses pretend to testify that a single gun has ever been made and used, after any of the designs shown in these foreign patents. Com. Folger saw some form of a Canet gun in Paris, in 1887 or 1888, but says, "I would not attempt to describe it," (46), and that he cannot recall the way in which it worked (47). Prof. Alger "had seen a good many years before" some kind of a

Farcot mechanism, whether in a drawing, a model or a gun he does not say, (31), and did not know Nordenfelt had any such mechanism (32), but understood that the Armstrong people had one which used a conical plug (32). Dashiell saw some kind of a Canet gun, but so far off that he could not examine it and would not have known it was a Canet, if he had not heard that the ship upon which it was carried them (192); he never saw the Nordenfelt screw-block device on a gun (193); he saw photographs of Canet's proving ground and of guns upon it having Canet's device for heavy guns, which he does not identify, and he says there was also "a picture of a device for light guns" (193-194).

This is the sum total of the evidence of actual making and use of the devices described in these foreign patents, and this evidence amounts to nothing in the way of establishing such making and use in connection with any particular one of these devices. The only one of these patents in regard to which the defendant has undertaken to show affirmatively and by positive proof that it describes an operative machine is the Nordenfelt, and his efforts in that direction have only succeeded in demonstrating that it will *not* operate, as has been already seen.

Advantages of the Seabury Invention.

The advantages which arise from the Seabury device and flowing directly from combination and mode of operation invented by him are as follows (137):—

Capacity for great rapidity of operation with a small extent of frictional contact between the parts which move the breech block into or out of the breech of the gun.

The small number of parts and points of connection actually required between the breech of the gun, the breech block and the breech-block carrier.

The small number and extent of the points of connection between the breech-block retractor, breech block and breech of the gun.

The application of power or force to the breech block directly behind the same, and in the direction of the line of resistance, as well as the application of such power or force in any desired relation to the line of movement of the breech block relatively to the breech of the gun.

The small chance or liability of dirt and foreign matter, such as

is very likely to enter the mechanism, getting into or between the parts of the breech-block operating mechanism.

The ease with which the dirt or foreign matter when thown upon or into the parts of the breech-block operating mechanism is removed by the operation of the mechanism.

The greater amount of dirt or foreign matter required to interfere with the working of the breech-block operating mechanism over what is the case in the said Sauvee mechanism.

The small extent of lost motion and sliding contact between the breech-block retractor, breech block and the breech of the gun.

The compactness of construction arising from the nearness of the points of connection between the breech of the gun and the breech block, and, consequently, among other things, the comparatively small sweep of the hand of the operator when operating the mechanism.

A stationary point of hinging of the retractor while the breech block is being withdrawn from or pushed into the breech of the gun.

The greater amount of strength obtained with the same size and height of the parts of the mechanism.

The comparative ease, certainty and rapidity of operation of the breech-block operating mechanism under the exceptional or onerous conditions of battle whether on sea or land.

These advantages are not presented by any of the patents cited by defendant as anticipating the Seabury patent. We have seen that none of the alleged anticipating patents contain the precise elements in combination and the mode of operation which are contained in the Seabury patent, and none present the advantages which the Seabury invention affords. For this reason the Seabury patent is entitled to a liberal construction to secure the invention actually made by Seabury and mentioned in the first claim.

The alleged anticipating patents do not have the effect of limiting Seabury to the precise form of each of the elements claimed in combination in claim 1, and of barring him from claiming equivalents which are combined in substantially the same manner, have substantially the same mode of operation, produce substantially the same results, and afford the same advantages in construction and operation.

The principle of the Seabury invention may be briefly stated to be that the same general means employed to rotate or partially turn the breech lock, to lock and unlock the same, and to swing the breech block and the carrier to one side, are employed as means for

transmitting the power to the breech-block retractor, to cause it to operate and serve the function of the patent in suit. In other words, the power which is to be applied to operate the breech-block retractor, is to be applied, in the first instance, at the same point that it is applied to cause the breech block to be locked and unlocked to and from the breech, and the breech block and the carrier is to be swung aside either to expose the gun or to return the breech block to the gun. That is, power which is applied to perform these three several acts or motions is to be, in the first instance, applied at one and the same point of mechanism.

The form, shape and arrangement of the means to which power is applied for performing these three several acts or motions is of no special consequence, and it is only required that there shall be some means employed, and that the power which is to finally act upon the breech-block retractor of said claim 1 shall be transmitted from the point where it is first applied to such means to the breech-block retractor.

This principle of operation as also found in the Dashiell construction, is that in both there is a breech-block carrier hinged to the breech of the gun onto which the breech block can be withdrawn, and from which said block can be pushed by a breech-block retractor, which is hinged to the breech, so as to be capable of moving independently of said carrier when the breech block is withdrawn thereupon and pushed therefrom, but capable of moving with said carrier while the breech block is upon the carrier.

This principle or principles of operation permit of the least number of points and extent of frictional contact between the breech of the gun, the breech block and the breech-block carrier, so that there is attained certainty of action or operation with comparative ease and with the least expenditure of force.

As heretofore explained there is some little difference between the hinging of the breech-block retractor to the breech of the gun and the connection of such retractor to the breech block, but the reasons have heretofore been given at length why such differences are immaterial and not of the slightest consequence when considering the substantial identity of the two constructions, and we only add that so far as the hinging of the two breech-block retractors to the breech of the gun is concerned, that in the Dashiell construction the breech-block retractor and the breech-block carrier could be hinged upon one and the same shaft or pintle without in any way affecting or modifying the mode or principle of operation of

such breech-block retractor, and, likewise the breech-block retractor of the said Seabury construction, referred to in the first claim of the patent in suit, could be hinged upon a separate shaft or pintle from that upon which the breech-block carrier is hinged to the breech, and yet have the different parts of the mechanism operate the same as they do in the mechanism used to illustrate the invention of the said first claim.

The eight specifications of error have been substantially discussed in the foregoing argument. The first and second asssignments and the seventh and eighth have been substantially considered in discussing the questions of novelty of Scabury's invention. The third, fourth and fifth have been considered in discussing the question of infringement and novelty.

The decree for the complainants directing an injunction and an accounting of damages and profits was right.

POINT FOURTH. The decree of the Circuit Court should be affirmed with costs.

WILLIAM A. JENNER,
WILLIAM G. WILSON,
Of Counsel.

Supreme Court of the United States.

OCTOBER TERM, 1895.

No. 569.

ROBERT B. DASHIELL

vs.

JAMES B. M. GROSVENOR AND OTHERS.

BRIEF FOR DASHIELL.

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Special Assistant U. S. Attorney.
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JUDD & DETWEILER, PRINTERS, WASHINGTON, D. C.

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BRIEF FOR DASHIELL.

This case comes up by certiorari of a record presenting a decree of the circuit court of appeals for the fourth circuit dismissing a bill in equity filed by Grosvenor *et al.* against Dashiell for an injunction, etc., because of an alleged infringement (as now limited by counsel) *of claim 1* of letters patent No. 425,584, granted to Samuel Seabury. The case was heard below upon bill, answer, and proofs.

The letters patent in question were applied for July 19, 1889, and issued April 15, 1890 (R., p. 263 and pp. facing that). They cover certain mechanism for opening, etc., the breech of breech-loading rapid-fire cannon. Seabury and Dashiell are both officers of the United States Navy. The latter also obtained letters patent No. 468,331 (issued February 9, 1892),

for mechanism effecting the same general purpose as that of Seabury. (Rec., p. 353.)

The only allegation of infringement made by the bill is, in general, that in consequence of an actual fraud to which Dashiell was a party the Government has appropriated and put into use the mechanism covered by *his* letters—such mechanism being, as alleged, an infringement upon that of Seabury. And the continuance of such use is the only apprehended infringement suggested for the future.

An outline of the defense is that—

1. Eliminating therefrom the charge of fraud and the matter affected thereby, the bill *states* no case for relief; and—

2. Upon the *proofs* the plaintiffs are not entitled to a decree; because—

(*a*) The device in question lacks *novelty;* and also—

(*b*) The state of the art as regards such mechanism excludes any such construction of claim 1 of patent No. 425,584 as would cover the mechanism of the defendant.

The following extract from the bill contains, as we believe, a full statement of the cause of action.

"That at the time of said infringement, and for some years prior thereto, the said defendant was an officer of the United States Navy, holding the rank of ensign therein, and was attached to the Bureau of Ordnance of the United States Navy, of which Bureau Commodore William M. Folger, of the United States Navy, then was and still is the chief, and as such stationed at and an inhabitant of said city of Washington, in the District of Columbia, having

official charge, supervision, and control of the manufacture of cannon for the said Navy at the Navy Yard in said city of Washington; that at the said time the said Samuel Seabury was a lieutenant in said United States Navy, but not detailed to or connected with said Bureau of Ordnance or said Navy Yard.

"That shortly after the issue to said Samuel Seabury of the aforesaid patent, numbered 425,584, said Seabury exhibited a model and drawings of his said invention to the said William M. Folger at the office then occupied by him as Chief of said Bureau of Ordnance, in the building of the Navy Department, in said city of Washington, for the purpose of procuring a trial and adoption of said invention by said Bureau and said Navy Department; that thereupon said Folger promised to give said invention a trial, and requested said Seabury to prepare and furnish working drawings, which would enable said Folger to construct for such trial a breech-loading cannon embodying said inventions; and such drawings were thereupon prepared by said Seabury and by him furnished to said Folger.

"That subsequently the said defendant, making use of the information and drawings thus obtained from said Seabury by said Folger, the same being furnished by said Folger to said defendant for that express purpose, undertook to contrive and devise a design substantially the same as the improvement in breech-loading cannon to that so as aforesaid invented by and patented to said Seabury, and to evade the charge of infringement by changing the form of certain parts of said invention of said Seabury; and in pursuance of this purpose the said defendant did contrive such design and make drawings thereof and furnish the same to the said Folger, who thereupon, with the consent and co-operation and aid of the said defendant, proceeded to construct and make trial of a breech-loading cannon in conformity with such design of the defendant, embodying substantially the said invention of said Seabury, but with some immaterial changes in the details of some of the parts, purposely designed by said defendant to evade the charge of infringement of the aforesaid patent, and designed to defraud said Seabury and his assigns of their rights in the premises; that the said defendant used the same, and also made trial and test of the same within the United States, and also within this District, and the trial and test of the same hav-

ing proved successful, by reason of the great merit of the said invention of said Seabury embodied therein, a large number of breech-loading cannon, embodying the said invention of said Seabury, were thereupon constructed at the said Navy Yard, under the consent and procurement of the said defendant, and under his assumed authority as the pretended inventor of such design, as well as in pursuance of the aforesaid conspiracy, combination, and confederacy of said Folger with the said defendant, and a large number of such breech-loading cannon are now in process of construction at said Navy Yard under such consent, procurement, and assumed authority of the defendant, and in pursuance of such conspiracy, combination, and confederacy, and in direct violation of the rights of your orators under the aforesaid patent.

"That such infringement was conducted by said defendant and said Folger in a secret manner and was by them and each of them intentionally kept from the knowledge of your orators until the early part of the year 1892, when it had reached such dimensions and extent that such concealment was no longer practicable.

"That said acts of the defendant and of said Folger worked a great fraud and wrong upon your orators, and were by them designed and intended so to do.

"And your orators further complain and say that they fear, and have reason to fear, that unless the said defendant, said Robert B. Dashiell, is restrained by writ of injunction issued out of this court, he will continue to make and use, and to cause and procure and authorize others to make and use, breech-loading cannon embodying the invention described and claimed in and secured to your orators by said letters patent, and thereby will cause irreparable injury to the rights of your orators in the premises.

"In consideration whereof," &c.

The cause of action here stated is, therefore, not a mere infringement of the patent in question, but an infringement perpetrated by fraud.

This charge is directly and explicitly denied by the answer, as follows:

"And the defendant also specifically denies that he has done any of the acts alleged in the bill of complaint, and

therein complained of as a conspiracy, combination, and confederacy of William M. Folger with this defendant; and more specifically he denies the allegations that making use of information and drawings obtained from said Seabury by said Folger he undertook to contrive, &c., &c., * * * and that such infringements or any infringements were conducted in a secret manner," &c., &c. (Record, folios 15, 16.)

In order to avoid recurrence to this matter, it may be well to add that a main reliance of the plaintiffs to show *fraud* was the appearance (at the time of taking proofs) of *the blue prints* that had been furnished by Seabury to Folger. These appeared *worn* at the edges, and were also perforated with small holes, from which it was argued that they had been used by the defendant in privity with Folger, as alleged in the bill. However, it was shown by the evidence of certain officials of the United States that during the pendency of the present suit these blue prints, *in an entirely fresh condition and unmarked*, had been placed in their hands by the Bureau of Ordnance for the purpose of making a model of the Seabury mechanism (see Evid. of Tippett, Crawford, and Birrell; folios 166, 174, 175); and upon the same matter the defendant testified that Folger had at no time made suggestions to him to *evade* the effect of the Seabury device, or that he (Folger) had in his possession the Seabury blue prints; and, moreover, that the witness had never seen these blue prints until the day upon which he was giving testimony—*i. e.*, March 24, 1893 (folio 230, &c.). To the same effect, so far as he himself was concerned, is the evidence of Folger (folio 63, &c.).

The pains taken by the plaintiffs to establish such fraud appears at length in the testimony of Seabury, and in the questions put by them to the witnesses Conder, Alger, Culver, Fletcher, and Green (all of whom are also officers of the Ordnance Bureau), and especially in the examination of Commodore Folger, who, as well as the others just

named, were called on behalf of the plaintiffs. (Record, pp. —.)

We submit that the questions thus referred to show a resolute and intelligent purpose to establish the existence of the fraud so alleged, a purpose, at the same time, so completely baffled at an early period in each examination as to prevent the learned counsel from tendering any direct and explicit interrogatory thereupon. The zeal and expectation of the plaintiffs herein is shown especially by their calling and examining Commodore Folger himself, to establish a charge so interesting to a man high in the ranks of a profession noted and valuable for a delicate sense of honor.

If, therefore, any portion of the Commodore's testimony betrays annoyance and warmth, this will easily be *pardoned.*

The contention on behalf of Dashiell may be arranged as follows:

1. Samuel Seabury was not the first and original discoverer of the improvement described in claim 1 of letters patent No. 425,584.

2. Robert B. Dashiell has not infringed the said claim.

3. No case has been made for an injunction, or therefore for a bill in equity.

4. Inasmuch as an unsupported charge of actual fraud affects the whole coherence of the alleged infringement, the bill will be dismissed, even although some infringement not so affected might be picked out of it.

A principal question arising from the record, and one to which this brief is mainly directed, is the relation of the

Seabury patent to that of *Dashiell*, under which the alleged infringement was made, and also to that of *Nordenfelt, No. 7195*, alleged by the defense to be an anticipation of *Seabury's*, as well as being otherwise important in regard to the previous state of the art. The respective dates material in this connection are as follows:

Seabury, No. 425,584: *Application*, July 19, 1889; *patent*, April 15, 1890 (p. 263).

Dashiell, No. 468,331: *Application*, November 4, 1890; *patent*, February 9, 1892 (p. 353).

Nordenfelt, British, No. 7195: *Application*, May 17, 1887; *complete specification accepted*, March 16, 1888 (p. 309).

[By arrangement, the general presentation of the defense arising upon the state of the art and some other like matters will be made by Mr. Singleton.]

First, then—

Samuel Seabury was not the first and original discoverer of the improvement described in claim 1 of letters patent No. 425,584.

The specification in that patent, so far as important, is as follows (pp. 263, 268):

"This improvement relates to breech-loading cannon in which a screw breech block, which is withdrawn in a rearward direction, is employed, with a swinging carrier or receiver hinged to one side of the breech of the gun, and into which the breech block is withdrawn, and which serves as a guide for directing the breech block into and from its seat in the breech and as a support for the breech block while

out of the gun. In such a gun there are three movements necessary to open the breech—namely, first, the turning of the breech block to unlock it; second, the withdrawal of the breech block backward into the receiver, and, third, the swinging aside of the receiver with the breech block in it. These three movements have hitherto been separately performed by hand, the breech block having been first turned to unlock it by hand and then pulled by hand back into the receiver, and the receiver having then been swung aside by hand with the breech block in it to open the breech.

"The object of this improvement is to provide for more rapid working, loading, and firing of such breech-loading cannon by effecting all these movements in succession by a continuous movement of a single lever.

* * * "What I claim as my invention and desire to secure by letters patent is—

"1. The combination, with a breech-loading cannon and a breech block for the same which is withdrawn in a rearward direction, of a breech-block carrier hinged to the breech, and the breech-block retractor hinged to the breech separate from said carrier to move independently of said carrier to draw the breech block thereinto and push it therefrom, but capable of moving with said carrier while the breech block is therein, substantially as herein set forth."

* * * * * * *

Seabury's claim No. 1, therefore, does not cover all three of the movements referred to in the previous description, but only so much as serves to pull the breech block out of and, *vice versa*, push it into the breech. Therefore the present question is in effect whether such pulling and pushing machinery either (*a*) lacks novelty or (*b*), under the state of the art at the time of its invention, has been infringed by what the defendant has done.

In regard to *lack of novelty*, the existence of the Seabury letters patent, of course, throws the burden of proof upon the defendant for the period since *the date of application—i. e.*, July 19, 1889 (Robinson "Patents," sec. 132, n. 1).

However, upon being notified by certain evidence for the defendant that the latter would contend that those letters were

anticipated by the English patent in favor of Nordenfelt, No. 7195, the completed specification in which had been filed March 16, 1888 (see Rec., p. 309, with Smith *vs.* Goodyear, 93 U. S., 486, 498; 1 Rob. Pat., 332, n. 3), the plaintiffs offered evidence to carry Seabury's "completed conception" of his invention back to some point of time previous to that date. Testimony to this effect has been given by Seabury himself alone.

His first elaborate account thereof having, as it seems, been thought to fall short of what was needed, he was examined at much length again after an interval of a month (May 12 and June 10, 1893). Record, pp. 98, 121.

No other testimony was given thereabout so far as we have observed.

We shall assume for the moment that the Nordenfelt patent is valid for the purpose of the anticipation above mentioned, and therefore examine the evidence which purports to carry the Seabury invention back *to a date before that of February 16, 1888.*

As to this, the burden of proof shifts to the plaintiffs (Johnson *vs.* Root, 2 Cliff., 108). "The rule in such cases is very strict." (Mayer *vs.* Hart, 20 F. R., 693; Deering *vs.* Winona Works, 155 U. S., 286, 300.)

For the purpose of convenient reference we quote the following language from 1 Rob. Pat., sec. 380:

"The date of the conception of an invention is the date when this idea of means, including all the essential attributes of the invention, becomes so clearly defined in the mind of the inventor as to be capable of exterior expression. The evidence by which this date is determined, in case of controversy, must be of such a nature as to demonstrate *that* '*the conception was complete.*' Obviously, the mere assertion of the inventor that at a given time this idea was fully present to his mental vision, unaccompanied by contempora-

neous acts or words indicating its existence, is not such evidence. Although his good faith be unquestioned, it is still doubtful whether his apprehension of the invention was definite enough to have enabled him to reduce it to practice without a further exercise of inventive skill. But any full and accurate description of it, either in word or drawing, is sufficient, as also is a model, if it be an instrument, or even an unsuccessful effort to embody it when the endeavor discloses that the idea was complete, although the attempt to represent it may have failed. In the absence of all other proof, the date of the application for a patent which contains such description is taken as the date of the conception." (See also the previous sections from "376.")

Testimony by the party who claims that an *anticipating conception* existed from and after a certain date, if it be unsupported by *drawings*, &c. ("*res gestæ*," R. Co. *vs.* Stimpson, 14 Pet., 448, 462), contemporaneous therewith, is insufficient to establish such date. (Ashton Co. *vs.* Coale Co. (*fourth circuit*), 50 Fed. Rep., 100; affirmed, 52 do., 314; Rob. Pat., as just cited, and *nn.;* 42 F. R., 152, 154; 8 F. R., 429, 432.)

The above rules are well established. Let us see to what extent they have been observed by the proofs for the plaintiffs.

These are as follows:

Upon the direct examination of Mr. Seabury on the 12th of May, 1893, the following questions and answers occurred:

"Q. When did you first get the idea of a device which would accomplish this purpose? A. As near as I can recollect, it was about that year—1883. I could not give any time, any special time in the year.

"Q. But do you remember as a fact that it was in that year? A. I should say so.

"Q. I mean when did some solution of the problem first present itself to your mind in the form of a device, however crude? A. As I say, to the best of my recollection, I carry it back to that year—that I had the idea—an idea which haunted me afterwards a great deal—about being able to

open that block by the action of a cam. That was the way in which I put it.

"Q. What was that idea? Describe the device as it then presented itself to your mind. A. Well, naturally, it was not very complete, or I should have worked it out afterwards. The idea was to carry the pin from the block, and by means of a cam on a lever—that is, a cam slot, for instance—when you open that lever to move the block over, and then to pull out. But the getting the block out and the subsequent movements were at the time very indefinite to me.

"Q. Did you make sketches at that time? A. Yes; I made sketches then and afterwards. But I have none to my recollection.

"Q. What kind of sketches were they? A. Just little pencil sketches on the edge of newspapers or anything else—something I never carried out to the extent of making a complete drawing of, because I never got the idea developed enough.

"Q. You mean at that time? A. At that time.

"Q. Can you make a rough sketch now which will illustrate the idea that you did sketch out at that time? A. (Witness makes a sketch and hands same to counsel.) [This is 'Compl't's Exhibit A 2, to face p. 270.'] About the action of the lever, of course, I have got to be indefinite; but the idea in my mind was the action of the cam in withdrawing—a sort of a general scheme, general idea, I had; to put the pivot off here somewhere (indicating). 'Somewhere' was an indefinite quantity; but, by turning that lever, the action of the slot on that pin was to turn the block first, and then withdraw it. As I say, that was as far as I got in it for some time. * * * (p. 76.)

"Q. When did that cruise [on the Tennessee and then the Richmond] begin and end? A. My cruise began in November, 1885. I was detached on the 1st of October, 1888. (p. 78.)

"Q. When did you get this design worked out completely? A. That one was worked out completely in July, 1889. You mean that exact one?

"Q. No; I mean that idea. A. No; it was worked out before that. It was worked out in—the idea was worked out by May, 1889." (p. 79.)

Upon the direct examination of Mr. Seabury on June 10, 1893, the following questions and answers occurred:

"Q. When did that idea [of simplifying the movements for opening a breech] occur to you? A. I had first that idea prior to the cruise of '85. As I stated before, the very first idea, as I recollect, was about '83." (p. 90.)

"Q. Those drawings which you began before you landed from the cruise ['1888'] were utilized in making the Patent Office drawings? A. They were utilized; the continuation of them. I went from one thing to another. I was working on the same idea, but they evolved from the one idea to the other until I got to the Patent Office drawing.

"Q. When did you have the Patent Office drawing begun? A. I began this about May, '89, I think.

"Q. When was the patent applied for? A. Applied for, I think, in June or July.

"Q. Were these drawings that were filed with the application for a patent made from a model? A. No, sir; I didn't have a model.

"Q. From what were they made, your own drawing? A. Yes, sir.

"Q. Made by you? A. Yes, sir.

"Q. Some of which were made before you landed from your cruise? A. I don't mean to say they were actually made.

"Q. I mean the drawings from which these Patent Office drawings were made were begun before you landed from your cruise. A. Yes, sir." (p. 98.)

"Q. The drawings which you began while you were on shipboard that you worked on while the ship was here over at the Navy Yard, on what scale were they? A. I don't recollect.

"Q. Do you know where they are now? A. I do not.

"Q. Where were they when you last saw them? A. The last time I saw them I sent them to the lithographer. I have lost track of them.

"Q. When was that? A. In '88, the first ones." (p. 98.)

The following is an extract from Exhibit No. 1, p. 271, that exhibit being a copy of a letter dated March 9, 1892, addressed by Seabury to his counsel, and verified by his affidavit—to be used by them as "evidence" in a communication addressed to the Secretary of the Navy—dated March 10, 1894 (p. 275):

"GENTLEMEN: In response to your request for my statement concerning the invention and patenting of my breech mechanism for guns, and subsequent relations with the Bureau of Ordnance, Navy Department, concerning it, I have to say that the original mechanism was invented and put in practical shape during the spring and early summer of 1889. Captain J. Wall. Wilson, of New York city, and others became interested in the matter, and patents were applied for in the United States in the summer of 1889. The United States patent was allowed in October of the same year and was issued on April 15, 1890, No. 425,584, applications for foreign patents being filed abroad on the same date."

Upon cross-examination Mr. Seabury testified:

"Q. I understand that you have no drawings at all to indicate the progress of your devices? A. No, sir; they have been lost through my various movements. I have moved my house——

"Q. Have you inquired for them? A. Yes, sir; I know that a number of rough sketches I have thrown away.

"Q. You say you left some with the lithographer above after October 1, '88 (p. 38)? A. I mean the '88 drawing I spoke of. That was a drawing for an automatic operation of a breech mechanism. It was in the same line as this was; followed it right up; not the actual thing.

"Q. I understand you to say that the idea of unlocking, rotating, and withdrawing the block occurred to you first—— A. Prior to the cruise of '85 to '88.

"Q. Did you make any drawings that conveyed that idea? A. How do you mean conveyed?

"Q. That conveyed it to anybody that saw it? A. No drawing, such drawing as I spoke of and illustrated the

other day, little sketches. I never got to the point of making a drawing which would show it clearly.

"Q. You have no drawing at all? A. No, sir.

"Q. Did you ever reveal the idea to anybody? A. No, sir. I did not do it for this reason, that it was a thing that I wanted to do, but I had not got it far enough along to show any one until later, when I got it up in some sort of shape. I did not do that until later.

"Q. When was that later? A. Well, I can't say that I exhibited it to anybody until I got it so it would work.

"Q. That was—— A. In the early part of 1889.

"Q. The first time that you exhibited anything that would show the idea—I mean to say this very idea—to a third person was in May, 1889? A. About that time, when I got it so that it actually worked.

"Q. I believe you said in your last examination that was May, 1889? A. I forget whether I did or not. I think that was about the time.

"Q. The idea was worked out in May, 1889, is what you have said here in the testimony? A. Worked out finally.

"Q. You had no drawing of it before that? A. No, sir; I mean to say that all I had before that was my own idea to get it to work, but not reduced to a drawing, not reduced to a practical drawing. I had little sketches and things of that kind that I kept to myself—many a thing I have done that way.

"Q. Did you have a drawing of your own, that exhibited the whole idea? A. Not prior to that, no, sir.

"Q. Not prior to May, 1889? A. No, sir. Those little sketches which I showed you in the other evidence was such as I had.

"Q. And your first drawing of your idea was in May, 1889? A. Yes, sir; that was the first drawing which shows the actual workings of the machine; prior to that I had it in small sketches." (pp. 99 to 101.)

"Redirect by Mr. JENNER:

"Q. This letter of March 9th, 1892, purporting to be addressed to you by Messrs. Wilson & Wallis and which was forwarded to the Secretary of the Navy, was that letter your own composition? A. Yes, sir; I recollect it was. I know that I submitted some such letter as that.

"Q. Did you compose it or draft it? A. Yes, sir.

"Q. Did you compose it or somebody else for you? A. No; I compose my own letters as a rule.

"Q. At that time, at the time of composing this letter [March 9, 1892], did you know what the legal construction of the term invention was or in what the inventive act consisted? A. No, sir; not as I have had it explained to me since. I imagined at that time that it must be a completed invention.

"Q. That the invention was not made until it was completed? A. That it was a completed thing; that it could not be a mere idea of principles or grouping of principles; it must be a complete thing.

"Q. A practical working thing? A. Yes, sir.

"Q. A reduction to practice of the idea? A. Yes, sir.

"Q. And that the invention was not made until that was done? A. That was the idea I had." (p. 101.)

We believe that the above contains all of the evidence in the record upon the matter of the date of Mr. Seabury's conception of his invention. We submit that it falls far short of the exigencies of the plaintiff's case in regard to "completed conception" anterior to March 16, 1888. He indeed admits in terms that he had no completed conception of means until May, 1889. There is no *preponderance*, even within his own testimony, in favor of a completed conception, or of course of any drawings thereof, or other *res gestæ*, communicated to third persons.

"*If the thing were embryo or inchoate * * * it cannot avail to defeat a patent. * * * If the question relate to a machine the conception must have been clothed in substantial forms which demonstrate at once its practical efficacy and utility.*" (Coffin *vs.* Ogden, 18 Wall., 120, 124.)

The above classical passage is more than usually pertinent here, where the complainants have taken pains to *develope* an "embryo"—in theory, by Mr. Newbury (pp. 189, etc.) and actually, by Mr. Netter (p. 165). Contemporary scientists tell us that embryos appear greatly to lack specific

character; so that their *outcome* may depend a good deal upon *culture;* there being, ex. gr. as they say, an identity of the sexes, and (*to flatter their fellow-men*) a wonderful resemblance even betwixt the *canine* and the *human*. So that if by Mr. Newbury's *culture*, and Mr. Netter's, in an atmosphere and other circumstances created by subsequent patented inventions, Mr. Seabury's sketches made in May, 1893 (pp. 77 and to face p. 270), in resurrection of ideas of his own in 1883, etc., otherwise unrecorded, should *turn out* to have been conceptions of such inventions—the circumstance is not strange, or "*operative*" for the purpose here intended to be served thereby.

Assuming that no *anticipation* has been shown of the Nordenfelt patent No. 7195, March 12, 1888, we proceed to consider the effect which this may have upon the novelty of the Seabury invention—the latter considered as of a *prima facie* date of July 19, 1889.

The "completed specification" of such letters begins with the following description:

"This invention relates to breech-loading guns in which the breech is closed by a block entering the breech opening and having spaced screw-threads upon it engaging with corresponding spaced screw-threads within the breech of the gun. In such gun I give all the necessary movements to the breech block by means of a lever handle and axis rotating through the arc of a circle. The same movement also actuates an extractor, and gives the necessary movement to it for withdrawing the cartridge case from the chamber of the gun.

"The mechanism as I prefer to construct it is represented by the annexed drawings."

Thereupon, after giving drawings and explaining them, he says: "I declare that what I claim is—

"1. Breech mechanism in which an axis *b* by means of an arm *d* turns the breech block *f* and locks and unlocks it,

and by means of another arm *k* withdraws and replaces the breech block; the said arm *k* being so connected with the axis *b* as to move with it only over a portion of the arc over which the rotation of the action extends." (p. 309.)

The better to illustrate the Nordenfelt specification, a model has been prepared at the Washington Navy Yard.

This Nordenfelt model is not offered as independent evidence, but merely as an illustration. The matter which in connection with foreign inventions is substantive evidence upon a question of *novelty* affecting a domestic patent, is not the physical representation—"*knowledge*" or "use"—*abroad* (as it is *at home*) of the invention, but only *the patent* or *printed description* (Rev. Stat., sec. 4886). It is therefore only the Nordenfelt letters patent themselves that are primarily material as evidence at this point. The model referred to is only secondary evidence reflecting upon the letters. The testimony of Worsey and Hough shows that this model was made upon a different idea from that of "skilled workmen" when embodying a mechanical invention. Whilst the latter set before themselves as their main purpose a practical solution of the question whether the thing will *work*, the object at the Navy Yard is to embody the "*ipsissima verba*" of the letters patent, even down to an *iota*, adding *nothing more*, not even a spring latch, no matter how obviously implied.

It was therefore in accordance with section 4886 above, that Messrs. Bartlett & Dodge, experts, on behalf of the defendant, were examined as to the Nordenfelt patent *before* the model had been constructed.

The testimony of the former, to the effect that this patent presents upon its face an operative device (X ex., pp. 221, 223)—one which he believed that he could himself construct, is especially valuable, inasmuch as by service as a principal examiner in the Patent Office, in charge of fire-

arms, &c.—and in that character passing upon and being responsible for nearly all cases in that office relating to such arms from 1876 to 1883; followed by ten years of conversancy thereabout, and private experience in their construction (p. 202)—he had acquired a fitness for forming such an opinion that amongst the witnesses in this case (excepting to some extent Mr. Durfee) is exceptional. (See also his evidence, p. 209; on X ex., p. 221.)

In saying (p. 226) that the Nordenfelt "structure is to all intents and purposes, so far as the devices for turning, withdrawing, and swinging the breech are concerned, the same as the Seabury structure,"

Mr. Dodge expresses the like opinion, allowing, that is, as the complainants must, that the Seabury structure is itself *operative*. Mr. Dodge repeats this opinion with emphasis and in various forms of words upon page 300, &c.

Another expert for the defendant, Mr. Durfee, was introduced after the model had been constructed, for the purpose of rebutting the effect of some observations thereupon which had fallen from Mr. Newbury, expert for the complainants.

The *stress* of the defense upon the point of an "anticipation" of the Seabury patent evidently falls upon the proper answer to the question, whether the Nordenfelt device is *operative*.

If it be operative it would seem to be a disparagement to the good sense of any plain man of sound judgment to doubt whether he would pronounce that device to be an anticipation *in omnibus* of the first claim (and indeed *the whole patent*) of Seabury; and so it is that Mr. Newbury, when considering the effect of the Nordenfelt device in this connection, limits his criticism thereof at the numerous points in which he refers to it by pronouncing it, in various forms of emphasis, *inoperative:* ex. gr. "but it utterly fails to describe an op-

erative mechanism,"" but it is wholly inoperative," "the thing is utterly worthless and is inoperative" (p. 122). So, on pages 138, 139, 155, 161, &c., &c.

During his first elaborate examination Mr. Newbury seems to have based his declamation upon the bare fact that the Nordenfelt model did not actually *work*. It certainly did not require an expert to say that or to repeat it.

The only material question in this respect is, Whether the inoperativeness was caused merely by a lack of some appliance within the reach of mechanical skill, or, on the other hand, of one requiring inventive ingenuity.

It follows (from what has so often been said by the courts and other authorities as to what it is that a claim requires for validity in the way of definite description) that the term "inoperative" means always in the connection now in question *inoperative for lack of some additional matter of* INVENTION.

At the present stage of patent law no citation of *authority* for such a proposition is necessary, but we refer to Pickering *vs.* McCullough, 104 U. S., 310, 319. The "matters of detail" which Mr. Justice Matthews said might be supplied there in order to obviate the objection that the *Wise* and *Smith* patents (relied upon to negative *novelty* in the patent in suit) were *inoperative* were, among others, "matters" to produce *friction*, and thus to prevent a slipping of parts, which slipping prevented the desired *operation*. (See Record, 155, vol. 7, of October term, 1881.)

Pickering's case is cited with others to the like effect, in Risdon Works *vs.* Medart, 158 U. S., 69, 82, as an illustration of the familiar principle that "if a certain device differs from what precedes it only in superiority of finish, or in

greater accuracy of detail, it is but a carrying forward of an old idea, and does not amount to invention" (p. 81).

The short question here, therefore, is, Would the details, if any, required to make the Nordenfelt model in question operative justify the issue of a patent to a party who should first apply them?

Messrs. Dodge and Bartlett, having been examined, as already said, before the Nordenfelt model had been made, and, therefore, before any question as to operativeness had arisen, Mr. Durfee was called, in order to apply the distinction above submitted as to the various meanings of the word "inoperative."

His testimony upon that point will be found mainly at pp. 238 to 244. He said, in substance, (239,) that the model was inoperative in two particulars—(1) for want of something to hold the tray or shelf to the breech during the extraction of the breech block, and (2) because the bolt *m* failed, early in the return movement, to remain stationary, and slipped on the under surface of the retractor. He added, (240,) that it was at once evident to him that some simple and self-evident means to adjust the friction between the bolt and the retractor would create a frictional resistance that would overcome that objection; and, thereupon he inserted between the bolt and the retractor a thin piece of sheet steel (one and one-half thousandths of an inch thick,) and found it amply sufficient to cause that part of the machinery to work. The sheet was so inserted as to be easily removed by a pair of pincers, and the model restored to its original condition of inoperativeness. After some other remarks he added (241,) that other mechanical devices for the same purpose, such as are quite within the functions of an ordinary skilled mechanic, are the three shown in a sketch which he made, and which is marked "6*c*,"—(1) a screw-bolt passing through the retractor and acting upon the washer pressing upon the

upper surface of the bolt, by turning which a greater or less amount of friction will be produced; (2) a gib placed between the dovetailed groove on the under side of the retractor and the dovetail on the bolt, and adjustable by a horizontal screw; and (3) a similar gib with a different kind of set-screw. He adds that those are well-known devices for such purpose used in a great variety of machines, such as lathes, shaping machines, &c. He then proceeded to show that by a simple alteration in the shape of the groove on the under side of the bolt in which the crank-arm 1[2] works, the inoperativeness in question would be greatly modified.

We need not pursue these details further. Upon page 243 he says substantially that "In the present state of the art of machine design and construction, it is a very common circumstance to introduce various methods of producing friction in machines in order to make these perform their proper functions. There are so many ways of doing this, and these so well known to the mass of mechanics of the world, that I have no hesitation to say that no mechanic of ordinary skill would have any difficulty in selecting one of these methods. As an illustration I cite the method of screwing pulleys to shafting. There are certain parts of planing machines which have revolving friction disks necessary to enable the machines to do their work properly; one disk sometimes acts to drive the other; and when the other is opposed by resistance the friction enables the first to slip upon the second, and there are a variety of such methods. Friction clutches are among the commonest things in the mechanical world." To a question whether the specification and drawings in the Nordenfelt patent described a mechanism for turning the breech block, extracting it, and passing it to one side that, with a supply of ordinary mechanical devices, would be operative, he answered: "I think they do; I think that with supply of ordinary mechanical devices such as I have been describ-

ing to the invention of Nordenfelt which he has described in his letters patent, his invention could be made an operative and efficient device;" and that (250) "as a rapid-fire gun."

Afterwards, referring to figure 2 of the Seabury drawings, Mr. Durfee calls attention to the importance of the intermitting *friction* there applied so as to secure lost motion at the point where the breech block is about to be relocked in the breech.

[To the above mechanical devices we may venture to add another—*i. e.*, a *spring catch* upon the retracting arm above the "bolt." This seems to us a very simple and effective remedy. As to that, however, all the same, we could not get an answer from the expert Newbury. (See X Q. 47, Rec., p. 101). We will append a drawing thereof which exhibits its operation—one exhibited as being merely *mechanical* and familiar, at another point in each of the models before the court.]

We accordingly submit that the presumption of operativeness which accompanies the patent to Nordenfelt has not been *rebutted*, but *fortified* by the result of the conflict thereupon betwixt the testimony of Messrs. Bartlett, Dodge, and Durfee on behalf of the defendant, and of Mr. Newbury on behalf of the complainants.

3. Robert B. Dashiell has not infringed claim 1 of letters patent No. 425,584.

A preliminary observation here is that the fact that the device supposed to infringe has itself been patented is *prima facie* proof that it does not infringe. (National Harrow Co. *vs.* Hanby, 54 Fed. Rep., 493.)

In the "state of the art" at the date of the application (July 19, 1889) by Seabury, a proper construction of his letters patent prevents them from covering the mechanism in the making and use of which the defendant has co-operated.

The familiar rule in such cases is clearly expressed by Justice Bradley in R. Co. *vs.* Sayles, 97 U. S., 554, 556, substantially as follows: *If one inventor precede all the rest and strike out something which includes and underlies all that they produce he acquires a monopoly, and subjects them to tribute; but if the advance toward the thing desired be gradual, and proceeds step by step, each is entitled only to the specific form which he produces, and every other inventor is entitled to his own, so long as it differs from those of the others, and does not include theirs.*

And see also 127 U. S., 478, 483.

In this connection it seems that the state of the art was actually unknown to Seabury at the date of his application, for at the outset of this he says:

"These three movements have hitherto been separately performed by hand, the breech block having been first turned to unlock it by hand and then pull it by hand back into the receiver, and the receiver having then been swung aside by hand with the breech block in it to open the breech."

This lapse in information upon a matter so important, of course, does not affect the validity of an invention made during its existence. It is, however, remarkable.

However, to return to *the construction* of the Seabury letters patent required by the state of the art in July, 1889.

The invention covered by those letters was not a *pioneer* one, as Mr. Seabury had thought. It is evident that the question which he solved had been much investigated for a number of years before by ingenious persons, and with various degrees of success.

We are not here about to renew our contention that the Nordenfelt invention, No. 7195, is an *anticipation* of that of Seabury. What we may be entitled to add, however, is that this invention, *considered only as evidence of the state of the art in July, 1889*, necessarily confines the operation of the Seabury mechanism within very narrow limits. It is not too much to say that its likeness to its successor is startling; or, indeed, that the *Nordenfelt gun* evidences a higher state of the art in question than *that of Seabury:* a circumstance probably due to the confessed inadvertence of the latter to the state of the art.

One familiar difference betwixt inventions which are *pioneer* and those which are not, is, that the former cover *substantial* variations of the same mechanism in subsequent devices, whilst the latter extend only to such as are *colorable.* (See McCormick *vs.* Talcott, 20 How., 402, 405: "If he be the original inventor," &c.) We submit that at all events there are *substantial* merits in the Dashiell device applied at the Navy Yard, (the *infringement* in question): *very* substantial merits, we mean, *not found in that of Seabury.* The extent to which that device has been adopted by scientific gentlemen who have a great professional and personal interest in its qualities goes far to prove this. It is evidence of what *experts in the art of war* think of a device important exclusively to that art. They at once appropriated it as fit to be *a comrade* of theirs! *Cuique in sua arte credendum;*— and this spontaneous burst of applause for this new-comer *upon deck* must outweigh volumes of the commendations of other devices, with which Mr. Newbury has favored us.

In the meanwhile it is also interesting to observe that there is no evidence (and probably could be none) that the Seabury gun has ever been adopted anywhere, at home or abroad. Commodore Folger has at no time had control over the Ordnance Bureau of the United States *Army*, and for some while has had none over even that of the navy. Why, then, have not the proper authorities availed themselves of that device, which Mr. Newbury (therein somewhat reminding us of *the sophist lecturing Hannibal*) so warmly recommends? It is a curious matter that those gallant and well-informed professional gentlemen who are so deeply interested in having *the very best arms at hand* in those moments critical to their own lives and to the fortunes and honor of the country—of which they all indulge day dreams—should avoid the employment of one which a patent expert assigns so many good reasons for preferring to that which they have selected. Yet there may possibly be other reasons for such rejection besides *fraud!* And, come what may of it, military men must be allowed free choice amongst those weapons which aspire to be what one of themselves—and a poet—has rapturously called their "*brides.*" Let all possible happiness attend such last embraces! And so has been the good sense of many generations: "And David said, *There is none like that!* GIVE IT ME!"

Unusually successful results attained by a device which to the ordinary eye may not materially differ from another device which has not succeeded is commonly said by patent authorities to be evidence of difference in principle, even though that difference cannot otherwise be detected. Although happily there has as yet been no immediate *apprehension* that the Dashiell device may soon be made use of in the presence of an enemy, yet the extent to which those who are officially qualified for that presence have asked to be then furnished with weapons so fitted, is one sort of the *success* above spoken of.

For the rest, Messrs. Dodge and Bartlett have intelligently and with proper specification detailed "the state of the art." On the other side are the criticisms of Mr. Newbury.

This, however, falls to the part assigned to Mr. Singleton.

3. No case has been made for an injunction, or therefore for a bill in equity.

Upon the present point the case is that the plaintiffs base their demand for relief as owners of an invention valuable within the United States, only so far as appropriated and put into use by the Government, upon a claim in effect to enjoin that Government from using such invention.

The learned counsel for Seabury meet the position that the invention in question is valuable within this country (the *sphere* of the patent) only so far as it may be used *by the United States* by suggesting that the defendant may put up workshops here and sell infringing articles to the States or to foreign governments, etc. Possibly he might. But *upon the case stated in the bill* there is no *probability* that he will; and "probability" is required to justify an injunction (High, *Injunctions*, secs. 22, 35; Cowley *vs.* Byas, L. R., 5, Chan., 944). The bill does not allege that Dashiell had secured any property rights in the device which he, a subordinate officer in the pay of the United States, acting at the instance of a superior, had contrived. It does allege in a casual way, upon information and belief, that he "has realized great profits." But nothing is stated in that connection to contradict the

principle that under the other circumstances in the bill *he could not* have done so (*Gill's case, &c., just decided by this Court*, and cited hereinafter as previously decided in the Court of Claims). *Folger* could not put his hands into the Treasury, and whoever had attempted to do it would have been prevented by officers of the law. The bill does not affect to allege more than that Dashiell is an ordinary *infringer*, one who has nothing to sell, but who from special relations with the Chief of Ordnance, United States Navy, has been enabled to procure the United States to employ a device which is really that of Seabury—"*embodying substantially the said invention, with some immaterial changes.*" An *immaterial* change is in patent matters, of course, *no* change.

We submit, therefore, that the bill lays no ground for apprehending that Dashiell will do more than carry on his then existing connection *with the United States*, and, moreover, that what he is alleged to have done raised no probability thereof.

As to this *the bill* must speak for itself. We are examining the case *as stated* by the plaintiffs—their *allegata*—defects in which, of course, cannot be eked out by recourse to the *probata* (or even *answer*). (Crocket *vs.* Lee, 7 Wheat., 522, 525; Jackson *vs.* Ashton, 11 Pet., 229, 249.)

Allegations in the bill carry the objection to an injunction still farther. These are that shortly after the issue of his patent Seabury exhibited his invention to Folger as chief of ordnance in order to procure its trial and adoption by the Navy Department, and that thereupon Folger promised such trial. By uncontradicted and unquestioned evidence in the record in farther explanation of that interview [see (p. 275, &c.) Seabury's letter to his counsel, dated March 9, 1892, written at their request, for use before the Secretary of the Navy upon this same controversy], it appears (p. 276) that after examining the model Folger expressed himself as

pleased with it, and asked what the royalty would be, and upon being told, it was agreed that $250 should be the price "for each four-inch gun in case *my* mechanism should be utilized."

We submit that this agreement placed Seabury upon a *contingent-contract* relation with the United States—that is, his mechanism was to be tried, and if utilized was to be paid for; the price for one class of gun being $250, and the others being left upon a *quantum valebant* footing.

Take this in connection with what Seabury says, as above, as to the mechanism which Folger did actually *try* and *utilize*, and, as we submit, upon Seabury's theory the contract became absolute, and he could have sued in the Court of Claims.

It is true that he also says that after such contingent contract had been made, Folger devised a fraud by which Dashiell was to profit by such trial and utilization; but if he had done so *he would not have carried the authority of the United States with him therein*, as he had done in making the contract. He was commissioned to contract on behalf of public interests; but not also to rescind such a contract *upon* private reasons, much less for fraudulent purposes.

The fraudulent scheme under which, as is said, the defendant proposed to pocket for himself the compensation due (*by the case stated in the bill*) to the plaintiffs, has no more connection with the transaction betwixt the latter and the United States, begun by the interview with Folger at his office in May, 1890, and consummated by taking into public use the "*Seabury*" mechanism, than if that *scheme* had been one for a personation of Seabury by the defendant in settling at the Treasury for royalties, or a plot for actually robbing him thereof after such settlement. The case imagined by the bill is one of a petty private fraud *tacked on* to a Government transaction, without the privity of either the Government or the persons with whom it had proposed to transact.

We dislike to recur to this wholly unwarranted charge of *fraud*, but it is a part of the business in hand, and we submit that by making it the plaintiffs have stated themselves out of court.

For, all that Dashiell has effectually done, according to the bill as above explained by Seabury's letter, is to aid (say unwittingly) in executing a cherished purpose of the plaintiffs (Seabury and assigns), the supposed *infringement* at the Navy Yard proved to be a mere ghost. The whole matter might leave Dashiell liable somewhere for fraud in intent if proved; but that would not authorize an *injunction;* and, besides, *upon the proofs* it also is as much of a ghost as any of them!

Upon these considerations it seems impossible that the extent to which the Government is interested in the subject-matter of this case should not be manifest.

But it may seem that the above is a too narrow and technical way of arguing a case which, at all events, touches so great interests and principles. We believe that a larger horizon and survey will confirm what has already been suggested.

The ordinary normal relation betwixt the Government and all loyal owners of such mechanisms comes, upon the reason of the thing, so near being one of a perpetual standing assent by the latter to their employment by the former, and *vice versa* by the former to make a *quantum valebant* compensation therefor; that it needs additionally very little evidence of actual consent to exclude all element of *tort* from such use—there being (suppose) in the case in question no doubt that the article was competently so appropriated.

The larger question, therefore, is, Can the Government, as matter of just theory even, be enjoined from making and

using a patented weapon of war—useful within the sphere of the operation of such patent only to themselves, and valuable to the patentee only so far as he may be compensated for such use.

If it be argued that such an injunction would be valid, at all events, "in time of peace," it will follow that the ancient proverb as to the event for which preparation is to be made during such "time" could not in this instance be made avail of by our Government; and that a future *war* might find it destitute of those magazines of rapid-firing, breech-loading cannon which in the present state of that art are absolutely necessary to the public security.

This consideration, as has been said already, is inseparable from *any possible case* that can be put in connection with patents of that sort.

It is true that this matter has very lately received the attention of the Court, and become the subject of elaborate and very satisfactory discussion. Inasmuch, however, as the present case presents *directly* features which in some of the former cases could be treated only *hypothetically*, we may be allowed freely to run over the familiar series, bearing in mind what has been laid down in the later cases of *Schillinger*, 155 U. S., 163, and *Berdan*, 156 U. S., 552.

In the case of James *vs.* Campbell, 104 U. S., 356 (A. D. 1881), James, then postmaster at New York city, had employed in his office a certain patented letter-stamping device belonging to Campbell, the plaintiff below, and that without his consent. The suit was in equity for an injunction and account. It went off upon an objection to *the reissue* of the patent; but evidently the Court in consultation had given great consideration to certain other questions dis-

cussed in the opinion, and there made the topic of weighty suggestions.

There was no evidence in that case which as betwixt private persons would have warranted a conclusion that a contract for the use of the device existed betwixt the parties. The defendant had appropriated the stamping machine to the use of the Government, *without more said.*

Thereupon, after holding that the Government cannot *propria motu* appropriate, or make use of, an invention without just compensation to the patentee—even where such invention relates to a subject (such as explosive shells, rams, &c.) which cannot be used properly save by the Government—the Court adds that—

"The mode of obtaining compensation from the United States for the use of an invention where such use has not been by the consent of the patentee, has never been specifically provided for by any statute. The most proper forum for such a claim is the Court of Claims, if that court has the requisite jurisdiction. As its jurisdiction does not extend to torts, there might be some difficulty as the law now stands in prosecuting in that court a claim for the unauthorized use of a patented invention; although where the tort is waived, and the claim is placed upon the footing of an implied contract we understand that the court has in several recent instances entertained the jurisdiction. It is true that it overruled such a claim on the original patent in this case presented in 1867, but, according to more recent holdings, it would probably now take cognizance of the case. The question of its jurisdiction has never been presented for the consideration of this Court and it would be premature for us to determine it now."

Mr. Justice Miller prefaced his dissent in that case as regards the invalidity of the patent, by saying that he had great doubt whether the United States patent law covers inventions that can be of no use to any one but the Government.

Hollister *vs.* Benedict Company, 113 U. S., 59 (A. D. 1884), presents a like case of the use of a patented device which was only of value to the Government, the use in question having been without any pretense of *contract.* The device concerned revenue stamps to be affixed to barrels, and the defendant was a collector of internal revenue. This case also went off upon an objection to the patent; but the Court repeated the suggestion that in such a case the remedy should be by suit against the United States in the Court of Claims, and went on to add to its former language the following:

"And it may be that even if the exclusive right of the patentee were contested, such an action might be brought in that court involving the questions relating to the validity of the patent, but as we have concluded to dispose of the present appeal upon other grounds it becomes unnecessary to decide the question arising upon this defense. It is referred to only for the purpose of excluding any inference that might be drawn from our passing it over without notice."

In the United States *vs.* Palmer, 128 U S. 262 (A. D. 1888), a case of an implied contract for the use by the Government of certain infantry equipments, the Court again repeated what it had said in James *vs.* Campbell.

The significance of this repetition by the Supreme Court of the suggestion in question at intervals during a period of seven years, is very great, especially as the case in which it occurred did not, as was expressly stated, admit of an authoritative decision of the point so discussed. As we have seen, Justice Miller had suggested in 1881 that the patent law did not extend to such inventions, whilst the rest of the Court had considered that it did so extend *for the purpose of giving the owner "compensation."* As against the Government then the right is one of compensation only. The owner cannot

forbid such use either directly or indirectly; *ex. gr.*, by asking for it more than it is reasonably worth—*more than compensation!* The exceptional qualities of the invention do not so much *authorize*, as *necessitate*, a use of it by the Government.

In such a state of things the *actual* animus of the owner towards such use—*i. e.*, his *actual* consent, or dissent,—cannot affect the character of the act by which the Government takes possession of the thing. To use a very familiar illustration, such actual consent or dissent is of no more importance to his subsequent suit *ex contractu* than is the actual state of mind of a husband towards some dealing by a third person with his wife whom he has deserted, and whose wants he has even warned the public not to supply *upon his credit*, upon an action in *assumpsit* brought against him for necessaries furnished to her in the very teeth of his prohibition. There are many other cases of like sort in which public policy *imposes* a relation of *contract* upon citizens irrespective of their actual disposition.

It must be a conclusion *juris et de jure* that every loyal resident within the United States is willing and even desirous that the United States shall appropriate to its own use any property of his that has the characteristics of the class in question. Therefore, if such invention has really gone into its hand, no suggestion of *tort* can arise even against its employés. For no agent who acts entirely under the orders of his principal can be guilty of a tort unless his principal would be so guilty if he had done the act in his own person. The language of the Supreme Court above referred to therefore is intended to avoid the very serious difficulty suggested by Mr. Justice Miller—a difficulty which, as it was not afterwards again referred to by him, may be assumed to have disappeared after reflection upon the substance of the practical solution given by the Court—which is, that as to such inventions there is a sort of double use, or,

twofold relation of right: *ex. gr.* one in the Government affecting the specific invention,—an actual appropriation of which confers upon the inventor a *contractual* right to compensation.

From the report of the opinion in Berdan's case, in 26 C. C., 48, pp. 77, &c., we quote as follows:

"It appears, generally, that the War Department is early and regularly informed of all improvements and inventions in fire-arms; the Department's attitude towards inventors in ordnance has been one of neutrality; it has neither denied nor admitted the legal rights, if any there were, of inventors. In an endeavor to perfect the Government arms, that Department has taken advantage of all knowledge within its reach, and of all inventions; it does not deny the claims of inventors, but has proceeded upon the policy that executive officers should not decide upon such demands upon the Government or upon conflicting claims, but that the claims should be presented without prejudice before some other tribunal than an executive department. * * * Plaintiffs were in constant communication with the Ordnance officers through their agents the inventors of the patented devices. These officers were early acquainted with the Berdan invention, whose use the patentee urged upon them. In August, 1868, Berdan * * * explained the device to the Chief of Ordnance, who said that if the defendants should use any of the features of the Berdan device 'they expected to pay for them when the claimant had gone through the proper channels and settled the claim.'

"Plaintiffs had urged the adoption of their devices by the Government and had demanded compensation therefor. It was evidently with an intention to obtain such compensation that Berdan conversed with the Chief of Ordnance, &c. * * *

"We find, then, in these facts the tender of the device to the Government, and the use of the device knowingly (certainly since 1874), in the belief that the Government would be called upon to pay a royalty for the device, provided the understanding of the Chief of Ordnance was correct—*i. e.*, provided the Government was doing what he believed they

were doing—manufacturing and using plaintiffs' device or its mechanical equivalent.

"The use by the Government was not a mistaken use, for the Chief of Ordnance understood he was doing what we have decided he was doing, to wit, using plaintiffs' device. It was not an unauthorized use, for the Chief of Ordnance has a very broad power in matters of this description (Rev. Stat., sec. 1164). It was not a use in ignorance, for the Chief of Ordnance was fully informed of all the facts; it was not an antagonistic use, for plaintiffs were anxious that the defendants should adopt and use their devices.

"The only element of doubt seems to have been whether the Ordnance officers should decide finally what they believed to be true, that plaintiffs were entitled to compensation, or whether they should leave that matter to the courts or to some other competent authority.

"We are of opinion that, under the rulings of the Supreme Court and of this court, heretofore cited, the facts disclose a contract between the parties to this action for the use of the extractor-ejector device."

The special pertinency of the above decision to the present case will better appear by adverting to the following passages in the testimony of Commodore Folger whilst under examination on behalf of the plaintiffs.

Upon his direct examination the following questions and answers occur:

"Q. Do you not make it your business, as Chief of the Bureau of Ordnance, to keep yourself informed as to the issuance of patents in the matter of guns? A. We receive notice of patents and of all patents that are filed in the American office—that is to say, there are instructions at the Patent Office to furnish us with them, in a general way, and specifically with regard to certain things, and they keep us pretty well posted as to what is being done." (Record, p. 51.)

"Q. If I understand you aright, you took no advice as to whether the making of the Dashiell mechanism would be an infringement of the Seabury patent any further than as

you have yourself interpreted the patent issued to Dashiell? A. No; I never took any advice on that subject. I went right ahead and made it. If there is an infringement there is a recourse to the Court of Claims to settle it.

"Q. Then you did not trouble yourself particularly about questions of infringement? A. I do not as a matter of fact. I advised Dashiell and advised the Secretary of the Navy in our conversation to let it go before the courts to be settled; that I did not care anything about it and was not going to look into it myself; that I would rather have it go before the courts than not. I remember Dashiell's saying to me that he preferred that this thing should go to the courts and be settled that way.

"Q. What time are you now speaking of? A. I am talking about the time that Seabury first made his objection to Dashiell getting the royalty. Dashiell has never received a penny of royalty on his invention yet, the Secretary having stopped it pending this case. That was when the Seabury people first began to write letters to the Secretary of the Navy.

"Q. Then it is your policy to make whatever you please in your department and leave any one whose patent may be infringed to resort to the Court of Claims? A. No; you are inventing a course of conduct which we do not pursue.

"Q. That is the course you pursued in this case? A. No; let me state it as I want to state it. My plan in this case was to urge the Secretary of the Navy to let us go on and make the mechanism and let the law courts decide the question of infringement; that they would have recourse for their rights, if they had any, in the Court of Claims. That is a very fine thing for you to suggest to me to say, but that is not my principle.

"Q. I understood you to say that you did not concern yourselves about questions of infringement. A. In this particular case I did not take time to look into it, because I was perfectly convinced that there was no infringement, so far as my own somewhat uninformed judgment was concerned." (p. 64.)

In answer to a question during the cross-examination as to the extent to which the chief of ordnance can exercise favoritism, if so inclined, Commodore Folger said:

"A. * * * The public service is guarded, and these mechanisms are adopted as the result of the action of a board of officers and not by the fiat of the chief of bureau. They are invariably adopted as the result of a report of the board." (p. 67.)

And upon the re-examination the following questions and answers occur:

"Q. Did any board of the Navy Department pass upon the Dashiell device before it was applied to guns? A. No.

"Q. Has any board ever passed upon it? A. Yes; since then.

"Q. At what time? A. I think two or three times, if I recollect right, they passed upon it, certainly in the six-inch size.

"Q. Can you tell me about when the first board approved it? A. If recollect aright, it was about 18 months ago. I do not remember the date exactly.

"Q. Who was on the board? A. Captain Howell was the president of the board, and Commander J. E. Newell and Ensign Edward Simpson were members of it." (p. 69.)

It is evident, therefore, that the method of the Navy Department in war, and also specially in the present case—for making avail of inventions important in war is, as might otherwise have been presumed indeed, the same as that in the War Department,—as mentioned in Berdan's case: *i. e.*, expert officers examine *models*, and not *letters patent*. They decide questions in the art of war, and not questions of law.

And in this connection it is evident that when Commodore Folger was under examination he and his learned questioner respectively used certain words at cross-purposes, as it were. The former regarded himself as interested officially only in the merits of *models*, not of *specifications*. When he spoke of *rights* passed on in his office he meant rights as defined by models only. All that he said of this sort was from a *naval* point of view! If this had been observed at the time, it might have prevented some apparently

semi-hostile passages betwixt the learned counsel and his own witness—called although the latter was, amongst lesser matters, to prove his own fraud! A military man might be allowed *to gag* at that, especially when examined in the presence of his subordinates.

The "instructions" of the Ordnance Bureau to the Patent Office are of course intended to inform that Bureau *at once* as to what new inventions *in its line* there may be, needing to be made and tested, and perhaps appropriated to the public service. In accepting this or that device they do not pretend to decide upon questions of *ownership*, but leave that to the Court of Claims. The reference by Commodore Folger to "the Court of Claims," as above, shows what he meant by the word "infringement," viz., some decision by that court that [to adopt its language as hereafter quoted] the *warranty of title* ascribed to any inventor who should bring suit *had been broken:* in other words, that if Seabury should have sued in that court, and some one else were shown to be the true inventor, he would virtually be an *infringer;* and *vice versa*, Dashiell would have been, if he should have so sued, and with such result. Clearly Folger did not mean that in either case the Government would be an infringer, or that Seabury or Dashiell would be, except so far as affected by a judgment of the Court of Claims, which, as is well known (Gill's case, 25 C. C., 415, 425), has no jurisdiction of technical "infringements." For his whole position is, that the Government has a right to use such things as if, so to say, *upon its contract in favor of "whom it may concern,"*—the identification of the very person *concerned* being left to the result of a suit in the Court of Claims.

In this connection we call attention to the analogy presented in the working out of a Constitutional principle by means of an "implied contract" in behalf of the true owner, whenever the Government makes use of *eminent* domain over "private property"; that is, "property" that has been dealt with not as *specifically* that of him who in the event

shows himself to be such, but merely as "private." Great Falls case (already cited,) 112 U. S., 645, 656, &c.

And in this way it appears that the course of the Court of Claims and the practice of the War and Navy Departments conform, so far, to the theory suggested by the Supreme Court in James *vs.* Campbell and the two succeeding cases, as above, viz., that the Government has a right to employ the invention; and conversely, the true owner thereof in cases of difficulty must look to the Court of Claims for that "compensation" which as betwixt him and the Government is the whole of what his letters patent practically secure to him. There is no *infringement* in such employment by the principal—the Government—and therefore none by any of its agents or officials competent to bind it. (See Johnson Co. *vs.* Union Co., 55 F. R., 487.)

It seems that the only material distinction betwixt Berdan's case and the present, is that there the Chief of Ordnance regarded Berdan as the true owner, whilst here the plaintiffs were not so regarded; or, in other words, that it was left to the Court of Claims to decide whether he were. But in each case that was merely a private opinion of the chief, founded upon inspection of a model only, or of some other exhibition of the device. In neither case was there any affectation of passing upon the muniments of title. In both, the "whom it may concern" (as was above suggested) was kept expressly in view. The only case which is apparently unprovided for by the language of the court in Berdan's case, when taken in connection with previous decisions, is that in which the Government employs some patented device under an "*adverse*" claim, *i. e.*, upon a claim of right *in itself, or perhaps in the public—ex. gr.*, where such device is not an object of private right *in anybody;* and therefore no *animus contrahendi* could exist upon the part of the Government *as to any one* whom it might concern, its understanding being that as property it "concerns" no private person.

In Schillinger's case, 24 C. C., 278, 298 (A. D. 1889), the court (speaking of patents) said, after quoting language contained in Campbell *vs.* James, &c., that "a careful examination of these cases shows that the contract to pay is implied wherever the Government, acting through a competent agent [and Berdan's case shows that the "Chief of Ordnance" is such] takes or uses individual property, acknowledging explicitly or tacitly that the property is individual property. No formal proceedings in condemnation are necessary to this result. Where, however, there is *a denial of private right in the alleged patent*, and the invention is nevertheless appropriated or used by the Government the appropriation or use is in the nature of a tort and an action thereon is not within the general jurisdiction of this court."

According to the Court of Claims, therefore, a contract is implied wherever *an authorized agent* of the Government employs in its service an invention of the class of that now in question, which he knows or believes to be *private property*; and such implication should be availed of by the true owner whenever *compensation* to him is refused by public officials in charge thereof. This conclusion, and not a confinement of such contract to cases where the *private owner himself* is known and dealt with, seems to be the very gist of the solution which that court has given of the matter raised and discussed by Bradley and Miller, justices, in Campbell *vs.* James. A Chief of Ordnance may make a mistake in *identifying* the party to be contracted with; but this does not injure the true owner when suing in the Court of Claims, and whatever he does of this sort during the dealing will inure to create *privity* betwixt the Government and that owner.

It will be observed that the Court of Claims does not admit, and as it seems reasonably, the perhaps inadvertent suggestion of Justice Bradley to the effect that in such cases *a tort is waived.* The overshadowing relation of the Government to all parties owning such property justly implies *a*

contract that it shall use it under circumstances which might make such use by private persons *an infringement and tort.*

In Gill's case, 25 C. C., 415 (A. D. 1890), an employé of the Government had invented a cartridge-loading, cartridge-weighing, &c., mechanism, and *before he took out letters patent* had authorized the Government to construct and use it. It was held accordingly that he was not entitled to recover for such use. However, *after such letters had been issued* the Government constructed and made use of another one of these machines; thereupon the court said (p. 426):

"For the purposes of this inquiry it may be conceded that if the construction of the ninth loading machine had been by an ordinary person an action for infringement could be brought against him. But in these cases against the Government the element of contract turns in and the element of tort must be excluded. It is as if the parties had expressly agreed that the taking of the Government should not be deemed tortious, and that where the validity of the patent is attacked the defense should come in as if the suit were on an express contact with a warranty, and the defendant was setting up a failure of consideration. Accordingly if the facts are such that a contract may be implied in these cases the Court will imply one; but the law will not treat the user as if it were an infringement.

"This implication must be drawn from all the facts of the case and the contract implied must give effect as nearly as may be to the supposed intent of the parties. *It is not the case of the owner of personal property who waives a tort and sues in 'contract;'* it is a case of an owner who offers his goods to a purchaser upon undefined terms and who consequently cannot maintain an action of trover or replevin, and the contract to be implied is one which ought to be inferred from all the facts of the case, recognizing a mutual intent in both parties [that is, as the context shows, *the United States themselves* on one side and *the true owner* on the other] and giving due regard to the rights of each."

4. The complainants having set forth at large charges of positive fraud against the defendant, none of which are supported by the proof, the bill should have been dismissed.

In this connexion we ask attention to the extract from the bill given at the first of this brief.

The cause of action there stated is, as we submit, not a mere infringement of the patent in question, but an infringement perpetrated with actual fraud. The allegations of infringement are mixed through and through with a charge of fraud, and there is no other sort of infringement stated.

Our suggestion that this charge has utterly fallen need not be argued. We presume that it will be frankly admitted.

We therefore submit, that, inasmuch as no case is stated in the bill except that to which the charge of fraud relates, and inasmuch, further, as the latter charge has failed, *the bill must be dismissed.*

For this we rely upon the following authorities:

In the notable case of Tillinghast *vs.* Champlin, 4 R. I., 173; 67 Am. Dec., 510 (A. D. 1856), the court, after stating the facts of a case of partnership dealings somewhat at length, proceeded to say:

"We have been thus special in our analysis of this bill for the purpose of showing that it is not, as contended by counsel for the complainant, a bill framed with a double aspect—charging either an actual or constructive fraud—or which leaves any pretense from its allegations, if that would make any difference, of its being treated by us in that way. On the contrary, in all its parts, from the first of the stating part to the prayer inclusive, with perfect unity of design, this bill charges the respondent Champlin

with the gross fraud of conniving with the absconding partner to cheat the creditors of the late firm of Gardner & Brother by taking a conveyance of partnership property from him when he was upon the point of absconding," &c. * * *

"Now, the answer specifically denies every fact and intent stated as constituting this actual fraud, and except the facts that Gardner did abscond with the purchase-money on the night of or during the morning after the deed in question was executed, and that there seems to have been some parade before the justice of the peace (who witnessed and acknowledged the execution of the deed by the grantor) of paying the consideration money in his presence and of having him to count the same, there is no proof, although some was attempted to be made, which affects the respondent with actual participation in the fraudulent scheme of Gardner. We do not think that the mere circumstances which we have stated are sufficient to overcome in a court of chancery the technical force of the sworn answer," &c. * * *

"The question which then arises is, whether, dropping this charge, which veins and intermingles with the whole frame and texture of the bill, and rejecting it as surplusage, we shall be justified, by the rules of the jurisprudence which we here administer, if on the allegations of the bill we can find some inferior ground of relief than the actual fraud charged of giving relief on that ground under this bill. It is said by the counsel for the complainant that we may and ought, and he seems to argue as if, refusing to do so, we should be guilty of sacrificing the inherent justice of the case to a mere rule of chancery pleading and practice." * * *

"*The rule* is thus laid down by Lord Truro, in *Price vs. Berrington*, 7 Eng. L. & Eq., 260, as an 'established doctrine of the court.' 'When the bill sets up a case of actual fraud and makes that the ground of the prayer for relief, the plaintiff is not entitled to a decree by establishing some one or more of the facts quite independent of fraud, but which might of themselves create a case under a totally distinct head of equity from that which would be applicable to the cause of fraud originally stated.' * * * Nor is the rule, as was remarked by counsel in *Price vs. Berrington*, 'Founded on any martinet principle of pleading. On

the contrary, Lord Cottenham, speaking of it in *Glascott vs. Lang*, 2 Phill., 310, 'as a rule generally acted upon,' propounds it also 'as founded in justice,' 'because,' he continues, 'the door of this court being always open to allegations of fraud, it would be unjust and much to be deprecated to afford any encouragement to such allegations by allowing a party to try the experiment of obtaining relief on that ground, and if it failed to fall back upon his bill for some inferior kind of relief.' This we deem to be sound morality and fit to be observed by those who sit in the gateway of the court of chancery to administer the high-toned justice of that court."

[We add that Tillinghast *vs.* Champlin contains quotations from most of the important cases previously decided upon the same topic.]

In Eyre *vs.* Potter, 15 How., 42, A. D. 1853, the plaintiff, an aged and infirm woman, charged the defendants with having fraudulently combined in obtaining from her the conveyance of a certain valuable property upon a grossly inadequate consideration, the circumstances of fraud being detailed. After stating the facts the court said (p. 56):

"And here it may be proper to premise that in the examination of the case made by the bill it cannot be considered as one of constructive fraud arising out of some peculiar relation sustained to each other by the complainant and the defendants, and, therefore, to be dealt with by the law under the necessity for protecting such relation; but it is one of actual positive fraud charged and to be judged of according to its features and character as delineated by the complainant and according to the proofs adduced to establish that character. Although cases of constructive fraud are equally cognizable by a court of equity with cases of direct or positive fraud, yet the two classes of cases would be met by a defendant in a very different manner. It seems to be an established doctrine of a court of equity that when the bill sets up a case of actual fraud and makes that the ground of the prayer for relief, the plaintiff will not be entitled to a decree by establishing some of the facts quite independent of fraud, but which might of themselves create a case under

a totally distinct head of equity from that which would be applicable to the case of fraud originally stated. In support of this position may be cited as directly in point the case of *Price vs. Berrington*, decided by Lord Chancellor Truro in 1851. *Vide*, Eng. Law and Equity Reports, vol. 7, p. 254."

It is to be observed that upon the authority of Eyre *vs.* Potter, the Supreme Court of the United States, in French *vs.* Shoemaker (14 Wall., 314, 335, A. D. 1871) "entertained strong doubts" whether even a defendant, and at that one whose answer contained distinct defenses other than the one which charged actual fraud upon the plaintiffs could, in case of failure to show the fraud, avail himself of those other defenses. But, inasmuch as the *proofs* in that case had failed in all respects, the decree was based upon the state of facts. This inclination to apply the rule in question even to *an answer* where also various distinct defenses had been stated, shows the firmness of the foundation of the general principles upon which the rule of equity now under discussion has been established.

We proceed farther to give extracts from a few of the many English cases which affirm the above doctrine.

In Ferraby *vs.* Hobson, 2d Phill., 255 (A. D. 1847), "in the stating part of the bill it was alleged that the trustees (defendants) had let a farm at an inadequate price to a sister of the appellant, one of the trustees, nominally as their tenant, but really as agent and for the benefit of the appellant himself, and that he in fact had pastured his cattle upon it; and in a subsequent part of the bill, after suggesting a *pretense* that the farm was let to the sister, and had always been occupied by her at a fair and just rent, &c., &c., it charged that *the contrary* was true, and that the farm had during the whole period of the occupation by the sister been held at a rent below its value," &c.

Thereupon Lord Chancellor Cottenham said:

"The charge made is not a charge of neglect in having permitted a tenant who originally entered at a fair rent to

continue that rent if a higher might have been obtained; and, without saying what circumstances might or might not have made the trustee liable upon such a case if it had been made, that case is obviously very different from one in which he is charged with personal corruption. * * * It was indeed attempted to be argued that that charge [neglect] was included in the case made in the bill; and it is true that there is charge that the farm had been held by the sister at a rent below its value; but it is quite clear when you look at the context of that passage, and the suggested *pretense* to which it is an answer, that it has reference exclusively to the charge of personal corruption contained in the previous part of the bill, and not to any distinct case of mere neglect or omission of duty."

This case has been selected from among a dozen to like purpose, because it shows what is meant by the English courts in saying that although the charge of fraud in the bill fail on the proofs, *yet if there be other charges therein that are of equitable cognizance relief may be given upon the latter*—the charge of fraud being visited by an imposition of costs in that connection—that is to say, such other charges must not be *of the coherence* with that which charges fraud, but must be of a context entirely distinct. In other words, an unsupported charge of fraud is so far odious in equity as to affect the whole of a bill, unless the latter exhibits upon its face a clear severance from that ground of relief of some other one also of equitable cognizance.

So in the present case the plaintiffs cannot be allowed to pick out of their bill some suggestion of *infringement irrespective of fraud* [and if there be such a suggestion it has escaped our eye] and lay this before the court as ground for relief.

Another illustration of what is meant by "charges in a bill *distinct* from that of fraud" is contained in Hilliard *vs* Eiffe, 7 Eng. & Ir. App., 39 (A. D. 1874), where the criterion of distinctness administered by the court was the practicability of leaving some other valid charge standing in the

bill *after those which imputed personal fraud had been actually stricken out.* As above said, the English courts deal with *distinct* allegations of fraud in such cases by imposing on the party who made them the costs of striking them out. Hilliard *vs.* Eiffe was a bill to set aside a deed granting an annuity on the grounds of (1) *actual fraud* and (2) *undue influence,* and it appeared that after actually striking out the former charge enough remained of the latter to warrant relief.

Although "undue influence" is one sort of actual fraud, yet the court required certain detailed charges of another sort of such fraud to be stricken out at the cost of the plaintiff as unproved, and by *striking out* tested the sufficiency of the charge of undue influence to stand by itself.

See also Gould's ed. of Story's Eq. Pl., p. 252, n. b.; 1 Dan. Ch. Pl., *328, n. 1; Hoyt *vs.* Hoyt, 27 N. J., 224; also L. R., 1 H. L'ds, 324, and Mr. Justice Bradley's observation in Clark *vs.* Wooster, 119 U. S., 325.

The criterion of *distinctness* in such cases appears (and for like reason) to be that employed by the Supreme Court of the United States to distinguish such unconstitutional statutes as may to some extent be *valid,* from those that are wholly invalid: "The point to be determined in all such cases is whether the unconstitutional provisions are so connected with the general scope of the case as to make it impossible, if they are stricken out, to give effect to what appears to have been the intent of the legislature." (Baldwin *vs.* Franks, 120 U. S., 678, 689, quoting from Louisiana *vs.* Allen, 103 U. S., 80, 84.)

S. F. PHILLIPS,
Special Assistant U. S. Attorney.
F. D. MCKENNEY.

MAR 25 1895
JAMES H. McKENNEY,
CLERK.

IN THE

Supreme Court of the United States.

OCTOBER TERM, 1894.

Ex parte

JAMES B. M. GROSVENOR, ET AL.,

Petitioners.

Petition for Writ of Certiorari to the Circuit Court of Appeals for the Fourth Circuit.

WILLIAM A. JENNER,
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IN THE SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1894, *Ex parte* JAMES B. M. GROSVENOR, LAVINIA WILSON, EDWARD H. LITCHFIELD and SAMUEL SEABURY, Petitioners.

Petition for writ of *certiorari* requiring the Circuit Court of Appeals for the Fourth Circuit to certify to the Supreme Court for its review and determination the case of Robert B. Dashiell, appellant, versus James B. M. Grosvenor, Lavinia Wilson, Edward H. Litchfield and Samuel Seabury, appellees.

TO THE HONORABLE THE SUPREME COURT OF THE UNITED STATES:

The petition of James B. M. Grosvenor, Lavinia Wilson, Edward H. Litchfield and Samuel Seabury, appellees, respectfully shows to this Honorable Court as follows:

FIRST. Your petitioners are citizens of the United States, residing in the States of New York and New Jersey. In and during the month of July, 1892, your petitioners were the owners of certain Letters Patent of the United States, which had theretofore and on the 15th day of April, 1890, been issued out of the Patent Office of the United States, numbered 425,584, upon an invention of the said Samuel Seabury above named.

SECOND. On July 25, 1892, your petitioners filed in the Circuit Court of the United States for the District of Maryland their bill of complaint against Robert B. Dashiell, a citizen of the United States, residing in the State of Maryland, wherein, among other things, your petitioners, as complainants, averred that said Robert B. Dashiell, the defendant, had infringed and was infringing, and was intending further to infringe, the said letters patent, without any license or authority; that said invention related to an improvement in breech-loading cannon; that said defendant was an officer of the United States Navy, connected with the Bureau of Ordnance of said navy, and that said defendant had combined and confederated with William M. Folger, Chief of said Bureau of Ordnance, for the construction of cannon at the Washington Navy Yard, embodying the said

inventions, and that such cannon had been constructed and then were in process of construction, under the consent and procurement of the defendant, and under the defendant's assumed authority, as the pretended inventor of the inventions secured by said letters patent to said Seabury, and that a large number of cannon were then in process of construction under such consent, procurement and assumed authority of the defendant, and prayed that the said defendant might be enjoined from such infringement, and might be required to account for profits and damages arising therefrom.

THIRD. Thereafter, the said defendant Robert B. Dashiell filed his answer to your petitioners' said bill of complaint, in and by which he denied that he had infringed the said letters patent, or intended to do so, or to cause or procure others to do so, and denied the validity of the said letters patent so issued as aforesaid to said Samuel Seabury, and belonging to your petitioners; and averred that he himself, the said defendant, had made a certain invention of his own, for which Letters Patent of the United States were issued to him on February 9, 1892, numbered 468,331, and that certain guns embodying his invention had been manufactured at the Navy Yard in Washington under the supervision and authority of the Chief of the Bureau of Ordnance of the United States Navy, and that all the acts performed by said defendant relating to the manufacture or use of guns had been performed under the orders of said Chief of the Bureau of Ordnance of the Navy Department.

FOURTH. To this answer of the defendant the replication of your petitioners was filed October 6, 1892.

FIFTH. Thereafter, proofs were taken on behalf of petitioners, as complainants, and on behalf of said defendant, and the taking of such proofs was concluded in or about May, 1894. By far the greater part of such proofs related to the question of the validity of the said letters patent in respect of novelty, and the defense that the same should be so construed by reason of the prior state of the art as not to include or cover the defendant's construction. A large number of patents of the United States, and of foreign patents, were introduced in evidence on behalf of the defendant, and the testimony of several patent experts called as witnesses on behalf of the defendant was taken at very considerable length.

SIXTH. Thereafter, the pleadings and proofs on both sides were printed, and the cause was noticed for hearing before said Circuit Court of the United States for the District of Maryland. Upon such pleadings and proofs the cause came on for hearing before the Honorable T. J. MORRIS, sitting as Circuit Judge, the hearing occupying two full days; and, thereafter, due consideration having been had, the Court, on July 19, 1894, made and entered the following decree:

"At a stated term of the Circuit Court of the United States of "America for the District of Maryland, in the Fourth Circuit, held "at the Court House, in the City of Baltimore, on the nineteenth "day of July, 1894.

"Present—HON. THOMAS J. MORRIS, District Judge.

"James B. M. Grosvenor, Lavinia Wilson, Edward H. Litchfield
"and Samuel Seabury
"against
"Robert B. Dashiell.

"This cause having come on to be heard upon the bill of com- "plaint herein, the answer thereto of the defendant Robert B. "Dashiell; the replication of the complainants to such answer, and "the proofs, oral, documentary and written, taken and filed, and "said cause having been argued by counsel for the respective "parties:

"Now, therefore, in consideration thereof, it is this 19th day of "July, 1894, ordered, adjudged and decreed, and the Court doth "hereby order, adjudge and decree, as follows, viz.:

"That the Letters Patent No. 425,584, granted and issued on "the 15th day of April, 1890, to Samuel Seabury, being the letters "patent referred to in the bill of complaint herein, are good and "valid in law.

"That the said Samuel Seabury was the first and original "inventor and discoverer of the improvement in breech- "loading cannon as described and claimed in the said "letters patent and the specification annexed thereto, and the "complainants, by mesne assignments, are the exclusive owners of "said patent.

"That the said Robert B. Dashiell, defendant herein, has in- "fringed upon the said letters patent and upon the exclusive rights

inventions, and that such cannon had been constructed and then were in process of construction, under the consent and procurement of the defendant, and under the defendant's assumed authority, as the pretended inventor of the inventions secured by said letters patent to said Seabury, and that a large number of cannon were then in process of construction under such consent, procurement and assumed authority of the defendant, and prayed that the said defendant might be enjoined from such infringement, and might be required to account for profits and damages arising therefrom.

THIRD. Thereafter, the said defendant Robert B. Dashiell filed his answer to your petitioners' said bill of complaint, in and by which he denied that he had infringed the said letters patent, or intended to do so, or to cause or procure others to do so, and denied the validity of the said letters patent so issued as aforesaid to said Samuel Seabury, and belonging to your petitioners; and averred that he himself, the said defendant, had made a certain invention of his own, for which Letters Patent of the United States were issued to him on February 9, 1892, numbered 468,331, and that certain guns embodying his invention had been manufactured at the Navy Yard in Washington under the supervision and authority of the Chief of the Bureau of Ordnance of the United States Navy, and that all the acts performed by said defendant relating to the manufacture or use of guns had been performed under the orders of said Chief of the Bureau of Ordnance of the Navy Department.

FOURTH. To this answer of the defendant the replication of your petitioners was filed October 6, 1892.

FIFTH. Thereafter, proofs were taken on behalf of petitioners, as complainants, and on behalf of said defendant, and the taking of such proofs was concluded in or about May, 1894. By far the greater part of such proofs related to the question of the validity of the said letters patent in respect of novelty, and the defense that the same should be so construed by reason of the prior state of the art as not to include or cover the defendant's construction. A large number of patents of the United States, and of foreign patents, were introduced in evidence on behalf of the defendant, and the testimony of several patent experts called as witnesses on behalf of the defendant was taken at very considerable length.

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"against
"Robert B. Dashiell.

"This cause having come on to be heard upon the bill of com- "plaint herein, the answer thereto of the defendant Robert B. "Dashiell; the replication of the complainants to such answer, and "the proofs, oral, documentary and written, taken and filed, and "said cause having been argued by counsel for the respective "parties:

"Now, therefore, in consideration thereof, it is this 19th day of "July, 1894, ordered, adjudged and decreed, and the Court doth "hereby order, adjudge and decree, as follows, viz.:

"That the Letters Patent No. 425,584, granted and issued on "the 15th day of April, 1890, to Samuel Seabury, being the letters "patent referred to in the bill of complaint herein, are good and "valid in law.

"That the said Samuel Seabury was the first and original "inventor and discoverer of the improvement in breech- "loading cannon as described and claimed in the said "letters patent and the specification annexed thereto, and the "complainants, by mesne assignments, are the exclusive owners of "said patent.

"That the said Robert B. Dashiell, defendant herein, has in- "fringed upon the said letters patent and upon the exclusive rights

" of the complainants under the same—that is to say, to making and " using and by causing and procuring and authorizing others to " make and use one or more breech-loading cannon embodying the " invention described in said letters patent, and particularly referred " to and claimed in the first claim thereof, as charged in the said bill " of complaint ; and it is further

" Ordered, adjudged and decreed that the complainants do recover " of the defendant the profits, gains and advantages which the said " defendant has received or made or which have arisen or accrued " to him since the 15th day of April, 1890, from the said infringe- " ment, and also the damages sustained by the complainant arising " out of the said infringement of said letters patent by the said de- " fendant since said date ; and it is further

" Ordered, adjudged and decreed that the said complainants do " recover of the defendant their costs and charges and disburse- " ments in this suit, to be taxed ; and it is further

" Ordered, adjudged and decreed that it be referred to Robert " Lyon Rogers, Esq., one of the Masters of this Court, residing in " the City of Baltimore, to ascertain and take and state and report " to the Court an account of the number of breech-loading cannon " made or used or caused, procured, or authorized by the defendant " to be made or used by others embodying the invention described " in said letters patent and particularly referred to in the first claim " thereof, and also the gains, profits and advantages which the said " defendant has received or which have arisen or accrued to him " since the 15th day of April, 1890, from infringing the said exclusive " rights of the said complainants by the manufacture, use or sale of " the said improvements, or authorizing others to manufacture and " use the said improvements patented in said letters patent, and also " the damages sustained by the complainants arising out of said in- " fringement ; and it is further

" Ordered, adjudged and decreed that the complainants on such " accounting have the right to cause an examination of said defend- " ant *ore tenus* or otherwise, and also the production of the books, " vouchers and documents of said defendant, and that the said de- " fendant attend for such purpose before said Master from time to " time, as said Master shall direct ; and it is further

" Ordered, adjudged and decreed that a perpetual injunction be " issued in this suit against the said defendant restraining him, his " agents, clerks, servants and all claiming or holding under or " through him, from making, using or selling, or in any manner dis-

" posing of or authorizing others to make, use, and sell, breech-load-
" ing cannon embracing the invention or improvements described in
" the said letters patent and particularly referred to in the first
" claim thereof, pursuant to the prayer of the said bill of complaint.

" THOS. J. MORRIS, Judge."

SEVENTH. Thereafter, on August 17, 1894, the said defendant filed his petition for the allowance of an appeal from the said decree, and assignment of errors therein, and the said appeal was duly allowed by the Hon. NATHAN GOFF, Circuit Judge. Such petition, assignment of errors and allowance are as follows:

" IN THE CIRCUIT COURT OF THE UNITED STATES FOR THE DISTRICT OF MARYLAND.

" James B. M. Grosvenor, Samuel Seabury, *et al.*, Complainants. vs. Robert P. Dashiell.	In Equity. No.

" PETITION FOR THE ALLOWANCE OF AN APPEAL.

" To the Honorable the Circuit Judge of the United States Circuit Court for the District of Maryland:

" Now comes Robert P. Dashiell, the defendant above named, by
" S. F. Phillips, special assistant United States Attorney, acting
" under an order in this behalf from the Attorney-General of the
" United States, dated the sixteenth day of August, A. D. 1894, and
" annexed hereto, and petitions for the allowance of an appeal to the
" United States Circuit Court of Appeals for the Fourth Circuit
" from the decree granting an injunction entered herein on the 19th
" day of July, A. D. 1894, and assigns the following errors of fact and
" law appearing therein:

" 1. Error in decreeing that Letters Patent No. 425,584 granted
" and issued to Samuel Seabury are good and valid in law.

" 2. Error in decreeing that said Samuel Seabury was the first
" and original discoverer of the improvement in breech-loading
" cannon, as described and claimed in said Letters Patent No. 425,584
" and the specifications annexed thereto.

" 3. Error in decreeing that Mr. Robert B. Dashiell, the defend-
" ant, has infringed upon the said Letters Patent No. 425,584.

" 4. Error in decreeing that a perpetual injunction be issued in " this suit against the said Robert B. Dashiell, his agents, clerks, " servants, and all persons claiming or holding under or through " him.

" 5. Error in not dismissing the bill of complaint herein for the " want of jurisdiction.

" 6. The complainants having set forth at large in their said bill " of complaint charges of positive fraud alleged to have been com- " mitted by the defendant, none of which charges are supported by " the proofs, it is on that account error not to have dismissed the " bill of complaint.

" 7. Error in finding that the British Letters Patent No. 7195 of " 1887, issued to Thorsten Nordenfeldt and filed in this cause, do " not describe an operative device.

" 8. Error in finding that said device described in Nordenfeldt " British Letters Patent No. 7195 of 1887 ' lacks one essential of " ' Seabury's claim, namely, the retractor is not separate from the " ' carrier and does not move independently of the carrier.'

" For all of which manifest errors the said defendant prays the " decree above described may be reversed and the bill of complaint " herein dismissed with costs.

" ROBERT B. DASHIELL,
" By S. F. PHILLIPS,
" Special Assistant U. S. Attorney."

" The defendant Robert B. Dashiell having filed his petition " praying an appeal from the decree entered in this cause on the " 19th day of July, 1894, and having filed his assignment of errors, " it is ordered that an appeal to the United States circuit court of " appeals for the fourth circuit be allowed, the petition for appeal " and the assignments of error by said defendant being filed by S. " F. Phillips, special assistant United States attorney, acting under " an order from the Attorney-General of the United States. No " bond required.

" N. GOFF,
" UNITED STATES CIRCUIT JUDGE, FOURTH CIRCUIT.

" August 17th, 1894.

" A. G. DEPARTMENT OF JUSTICE. W. B. D.

" WASHINGTON, D. C., August 16, 1894.

" S. F. PHILLIPS, ESQ., Washington, D. C.:

" SIR—In the case of James B. Grosvenor *et al.* against Robert " B. Dashiell, in which you appear for the defendant at the instance " and to defend the interests of the United States, please take an " appeal to the circuit court of appeals.

" Respectfully yours,

" RICHARD OLNEY,

" Attorney-General."

EIGHTH. Thereafter transcript of the record and proceedings in the cause was duly filed in the office of the Clerk of the United States Circuit Court of Appeals for the Fourth Circuit, and such proceedings were thereafter had that such appeal came on for argument before the Justices of said Circuit Court of Appeals on the 8th and 9th days of November, 1894, when said appeal was argued on behalf of said defendant and appellant and on behalf of your petitioners as appellees therein. And thereafter, on or about February 5, 1895, said Circuit Court of Appeals announced its decision as follows:

" The court stated the case as follows: This is an appeal " from a decree rendered in the Circuit Court of the United States " for the District of Maryland, in the chancery cause of James B. " M. Grosvenor and others against Robert B. Dashiell, by which it " was adjudged that letters patent No. 425,584, granted to Samuel " Seabury, dated April 15, 1890, for improvement in breech-loading " cannon are valid, and that the same have been infringed by Robert " B. Dashiell; also that the said Seabury and his assigns recover " from said defendant certain profits and damages, and that a per- " petual injunction be issued.

" It is claimed in the bill, which was filed on the 25th July, 1892, " that Seabury was the inventor and patentee, and that he assigned " certain interests in the letters patent to his co-complainants, who " with him then owned the entire right and title to the invention; " that the defendant, well knowing the premises, has wrongfully, un- " lawfully and injuriously, with intent to derive profits therefrom " and to deprive complainants of the royalties to which they were " entitled, conspired, combined and confederated with William

" M. Folger and other persons, and infringed upon the rights " of the owners of said patent, by making and using, and " causing and authorizing others to make and use a large number " of breech-loading cannon, embodying the inventions described and " claimed in and secured by said letters patent, without any author- " ity from said owners so to do, whereby defendant has realized " large profits to the loss and injury of the patentee and his as- " signees; that, at the time of the infringement charged, the defend- " ant was an officer of the United States Navy, holding the rank of " ensign, and was connected with the Bureau of Ordnance of the " Navy Department, of which Commodore William M. Folger was " then, and still is, in charge, having control and supervision of the " manufacture thereat—under the direction of said Bureau—of can- " non for the use of the Navy of the United States, particularly at " the United States Navy Yard, at Washington, in the District of " Columbia; that, shortly after said letters patent were issued to " Seabury, he exhibited a model of the invention, together with " drawings relating to the same, to said Commodore Folger, at his " office in the Navy Department, at Washington, his purpose being " to procure a trial of the device mentioned, and, in case it proved " successful, its adoption by the Navy Department, and that the " said Folger requested him to furnish his said Bureau with working " drawings by which the Department would be able to construct " a breech-loading cannon embodying such invention, which Sea- " bury proceeded to do, and delivered the same to Folger; that " afterwards the defendant, making use of the information and draw- " ings so provided, which it is charged were given him by Folger " for that express purpose, undertook to construct and devise a " design substantially the same as that so invented by Seabury, " changing the form of certain parts so as to evade the charge of " infringement; that defendant, in pursuance of this purpose, did " contrive a design and make drawings of the same, which he " furnished to Folger, who, thereupon, with the consent, co-opera- " tion and aid of defendant, proceeded to construct and make trial of " a breach-loading cannon in conformity with the design of de- " fendant, embodying substantially the Seabury invention, with " immaterial changes in the detail thereof, purposely designed to " evade the charge of infringement, and intended to defraud Sea- " bury and his assigns of their rights under the said letters patent; " that, a test of the same proving successful by reason of the great " merit of the Seabury invention embodied therein, a large number of

" breach-loading cannon were constructed at said Washington Navy " Yard, according to such design, under the procurement of defend- " ant, and with his consent as the pretended inventor of the design, " as well as in pursuance of the conspiracy, combination and con- " federacy of said Folger with the defendant; that a large number " of such cannon are now in process of construction at said Navy " Yard under such consent and authority, and in pursuance of such " conspiracy and confederacy; that such infringement was con- " ducted by defendant and Folger in a secret manner, and was " intentionally kept from the knowledge of complainants until it " reached such dimensions that concealment was no longer possible; " that such acts worked a great fraud on Seabury and his assigns, as " they were intended to do; and that defendant will continue to " make and use, and cause others to make and use, breech-loading " cannon under the invention secured by said letters patent, and " thereby cause irreparable injury to plaintiffs unless restrained by " writ of injunction.

" The prayer of the bill is that defendant may be compelled to " account for and pay to plaintiffs the income and profits so unlaw- " fully obtained, together with damages and costs, and that he be " perpetually injoined and restrained, as also, his clerks, servants, " employees, agents, attorneys and all persons acting under his " authority, from making and using, or causing to be made and used " breech-loading cannon embodying the Seabury invention, and for " such further relief as may in the premises be just and proper.

" The defendant answered denying all the charges of fraud, and " particularly the allegations as to the conspiracy and confederation " with the Chief of the Bureau of Ordnance of the Navy Depart- " ment. He also denied that Seabury was the true, original and " first inventor of the improvement set forth in his letters patent. " The answer admits that the defendant is a naval officer, connected " with the Bureau of Ordnance, and that Commodore Folger is the " Chief of said Bureau; that the defendant has been under the orders " of such chief while he was engaged in the manufacture of the " cannon alluded to in the bill; that in December, 1889, the defend- " ant told Folger that he was designing a rapid-fire gun, and that he " completed his plans and drawings for a model of the same in " April, 1890; that in September, 1890, he was placed in charge " of the 'Proving Grounds,' at Indian Head, in Maryland, where he " has since been, but that he has had nothing to do with the manu- " facture or sale of the cannon alluded to, except to test them as to

" structural weakness, facility of operation, rapidity and precision of " fire, and their efficiency and safety; that in August, 1890, he ex- " hibited a model of his invention to Commodore Folger, who asked " him to prepare working drawings for a four-inch rapid-fire gun, " which he did, sending them to the Bureau in September, 1890; " that breech-loading cannon have been constructed at the Navy " Yard at Washington, embodying an invention patented to him on " the 9th day of February, 1892, but that they were manufactured " under the orders, supervision and authority of Commodore Folger " and the officers of said Navy Yard. Other matters are set forth " in the answer, but will not be referred to, as, from our view of the " case, they are immaterial.

" A great number of witnesses were examined, relative to the " patents in controversy, to the state of the art to which they belong, " and to the manufacturing of breech-loading cannon at the Wash- " ington Navy Yard, the contract relating to the use of defendant's " invention, and the royalty to be paid him by the Navy Depart- " ment for the right to use the same.

" The case came on to be heard, and on the 19th day of July, " 1894, a decree was entered in the Court below, adjudging the Sea- " bury patent to be valid in law; that the defendant had infringed " upon the same; that complainants recover of him the profits made " by him on account of such infringement; that an account be stated " showing the number of breech-loading cannon made, and caused " by defendant to be made, embodying the invention described in the " Seabury patent, and the gains and profits defendant had received " from his infringement of the same, together with the damages " complainants have sustained thereby; and that a perpetual in- " junction be issued against the defendant restraining him, his " agents, clerks, servants and all persons claiming or holding under " him, from making, using or selling, or in any manner disposing of, " or authorizing others to make, use and sell, breech-loading cannon " embracing the invention or improvements described in the Seabury " Patent. From this decree an appeal was prayed for and allowed, " the petition for the appeal and the assignments of error being " filed and prosecuted by counsel acting under an order of appoint- " ment and instructions from the Attorney-General of the United " States, as well as by counsel for defendant below.

" GOFF, CIRCUIT JUDGE. We think that the pleadings and proofs " of this cause clearly demonstrate that this is, in substance, if " not in form, a proceeding the object of which is to prevent the

" making of breech-loading cannon, of a certain character and by a " particular device, at the Navy Yard of the United States, in the " City of Washington, District of Columbia, by those officially in " charge thereof representing the Government of the United States ; " and also it is clearly shown that the injunction granted by the " Court below will in effect prohibit the officers so in charge of said " Navy Yard, from manufacturing such cannon for use on the vessels " of war of the United States, as provided for under the provisions " of existing legislation, the reason for such prohibition being that, " in so making breech-loading cannon, said officers are infringing " on the rights granted to Samuel Seabury by Letters Patent No. " 425,584, dated April 15, 1890.

" Should a suit instituted under such circumstances and with " such intention be sustained ? Do not public policy and the rights " of the government in its sovereign capacity require that parties " feeling themselves aggrieved on account of matters relating to such " transactions as we have alluded to—to such circumstances as are " set forth by the evidence taken and filed in this case, should be " compelled to seek relief and compensation, if so entitled, by pro- " ceeding in another manner and before another tribunal, and that " the courts should not use their writs of injunction so as to retard " and embarrass the Government in the prosecution of work, the " product of which is absolutely essential to the public welfare and " the national defense ? We think that the consent of the owner of " a patented device, while it is desirable and should be obtained, if " it conveniently and reasonably can, is not positively necessary in " order to enable the United States to use the invention described " in the letters patent, particularly in cases where it relates to the " mode of construction of implements of warfare required by the " Government and indispensable to the armament of its vessels of " war. Such right to take and use the property of the citizen for " Government purposes is indisputable, an inborn element of sover- " eign power essential to the independence and perpetuity of the " nation.

" The Constitution of the United States provides that Congress " shall have the power to raise and support armies, and to provide " and maintain a navy. By virtue thereof the Congress has ap- " propriated and caused to be expended large sums of money for " such purposes, and for the manufacture of arms, the construction " of ships of war, and the establishment of navy yards, including " the one at Washington where the breech-loading cannon men-

" tioned in complainant's bill have been and are now being manu-
" factured. Under recent Acts of Congress millions of dollars have
" been expended through the Navy Department in the purchase
" and manufacture of the armor-plate and armament required for the
" ships of war lately constructed and now in process of building,
" and in the procurement and installation of the improved ma-
" chinery for use in the breech-mechanism shop at said Washington
" Navy Yard, for the purpose of constructing cannon of the character
" referred to in the bill. It is evident from the legislation by Con-
" gress on this subject, and the action of the officials of the Govern-
" ment thereunder, that it was and is the intention of the United
" States to cause to be manufactured, for national purposes, breech-
" loading cannon of the most approved and scientific design, utiliz-
" ing such plans and inventions as would best secure the result de-
" sired, and making in those cases, where the right to use a patented
" device had not been secured, just compensation to the owner
" thereof, in the manner usual under such circumstances. After
" careful investigation, involving the examination of many designs,
" drawings and innovations, with the aid of models and experiments,
" the Chief of the Bureau of Ordnance formulated his plans, selected
" and adopted the devices and inventions he deemed best, and com-
" menced the making of the breech-loading cannon, as he was authorized
" and directed by the Congress to do, employing in connection with
" such work the defendant in this case. If the invention claimed by
" complainants is being used and infringed by those so representing
" the United States, then the owners of the same can recover just
" compensation for such use and infringement, from the Government,
" by suit in the Court of Claims, or by means of an appropriation
" for that purpose made by Congress, on application made to that
" body.

" The Fifth Amendment to the Constitution of tne United States
" contains the provision that private property shall not be taken for
" public use without just compensation, and this we must consider
" as an implied assertion that on making such compensation it may
" be so taken. It will be noted that this is not a restriction of the
" power to take private property for public use, but that it is a re-
" quirement that when such property is so taken just compensation
" shall be made therefor to the owner. That incident of sovereignty
" —the right to take—belonging to every independent goverment
" is not disturbed, nor is the manner in which such right is to be
" exercised, or the mode by which the proper compensation is to be

" ascertained and paid set forth. And because Congress has pro-
" vided by statutes a procedure for the condemnation of private
" property required for public purposes, in certain instances and not
" in others, we are not, therefore, to infer that the power to take
" does not exist as to the other matters, nor should we construe such
" legislation as a limitation of that power relative to other cases of
" like character not embraced in such enactments. In other words,
" the non-user of a power is not to be used to disprove its existence.

" The title the individual citizen has to his property is good
" as against all other citizens, but it must yield to the necessity of
" the Government, and submit to the social requirements and rights
" of the general public—and this right of the Government to protect
" itself and defend its own is not to be controlled by any other power-
" nor is it to depend on the consent of any person, company or cor,
" poration. The only restriction, as we have already remarked, is the
" constitutional requirement that just compensation shall be made
" to the owner for property so taken. The proper mode of pro-
" ceeding in order to secure compensation for private property
" taken for public use without the consent of the owner, and in the
" absence of legal action for condemnation, has received judicial
" consideration, the Supreme Court of the United States having at
" different times plainly indicated the same, particularly in cases
" where the Government has used an invention without the per-
" mission of the owner of the letters patent protecting the same
" (*Kohl vs. United States*, 91 U. S., 367, 374; *James vs. Campbell*,
" 104 *U. S. 356*; *United States vs. Great Falls. Mfg. Company*, 112
" U. S., 645, 656; *Hollister vs. Benedict Company*, 113 U. S., 59;
" *United States vs. Palmer*, 128 U. S., 262. Also the following
" cases in the Court of Claims: *Schillinger's Case*, 24 C. C., 278,
" 298; *Gill's Case*, 25 C. C., 415; *Berdan's Case*, 26 C. C., 48).

" We do not think that contending patentees, striving between
" themselves and those interested with them as to the validity of
" their respective letters patent, should be permitted to close the
" arsenals, ordnance shops and navy yards of the United States
" by injunctions issuing out of their litigation, thereby frustrating
" the designs of the Government, rendering inoperative the legisla-
" tion of Congress germane thereto, and causing great loss of the
" public funds appropriated by Congress in execution of the same.
" It is true that the United States is not made a party to this
" action, but it is also true that it is disclosed by the pleadings and
" evidence that the cannon the further making of which it is the

" object of this suit to enjoin are now being manufactured at the " Navy Yard of the United States at Washington by the employees " of that establishment under the direction of the Chief of " Ordnance of the Navy Department; and it is apparent that such " an observance of the injunction granted by the Court below, as " should be shown by those to whom it is directed, and as must " necessarily be required by the Courts while it is of force and " effect, will close said Navy Yard so far at least as the manufacture " of breech-loading cannon is concerned, and thereby prevent the " enforcement of certain laws of the United States, the consumma- " tion of which is of national importance.

" Independent of the questions we have been considering, " there is another reason why, on the case as made in the " record before us, the plaintiffs below are not entitled to " a decree in their favor. Their bill of complaint, as drawn, " rests upon the allegations of fraud contained therein, and " it must stand or fall, as the testimony establishes or fails " to sustain such charges. The positive assertion of fraud " permeates the entire bill—it is the warp and woof of its " structure—depending on the combination, conspiracy and confedera- " tion of the defendant and William M. Folger, as Chief of the Bureau " of Ordnance, to use the invention of Seabury and deprive the " patentee and his assignees of the benefits and royalties claimed to " be secured to them by the letters patent referred to. A court of " equity will not grant a decree on another ground where the bill " charges actual fraud as the ground of relief, and the fraud is not " proven. We find that there is an utter failure to sustain the alle- " gations of fraudulent conspiracy and confederation charged in the " bill. It is shown that Commodore Folger, in his endeavor to " secure the most useful and scientific plans and devices by which " to construct the breech-loading cannon directed by the Congress " to be made, the manufacture of which was committed to him—did " advise with the plaintiff Seabury, and did request of him his plans " and drawings, and also that he did the same with the defendant, " as well as with others; and, also, it is shown that Folger believed " that the plans of the defendant were best adapted to the object " desired to be secured by the Government, and that he agreed to " pay a certain sum for the use of the same, under the impression " that the defendant was the inventor and patentee of the design so " selected. But there was no intention to deprive the true owner of " his right to demand and recover just compensation for the said

" taking and using, and it would not have availed had such intent " existed, for the legal owner could have recovered even though " another had by mistake or fraud been paid.

" The charges of fraud have been made, either under an entire " misconception of the facts, or with a recklessness that at least is " not commendable, and should not be encouraged by an endeavor on " the part of this Court to relieve the complainants of the embar- " rassment caused thereby by holding that they are entitled to a " decree founded on some general ground of equity jurisdiction, not " specially pleaded, but supposed to be included in the prayer for " general relief. While equity will always relieve those who suffer " from acts of fraud, it has also always required that those who seek " its jurisdiction on that account shall, after having carefully scrutin- " ized the cause of complaint, most clearly formulate the allegations " of the same, and then that they shall fully prove that which they " have so alleged. We do not deem it essential to discuss this " matter, elementary as it is in character, but we refer to the follow- " ing cases in which the subject is fully considered: *Montesquieu vs.* " *Sandys*, 18 Ves., 302; *Price vs. Berrington*, 7 Eng. L. & Eq., 260, " in which case Lord TRURO says: ' When the bill sets up a case of " ' actual fraud, and makes that the ground of the prayer for relief, " ' the plaintiff is not entitled to a decree by establishing some one " ' or more of the facts quite independent of fraud, but which might " ' of themselves create a case under a totally distinct head of equity, " ' from that which would be applicable to the case of fraud originally " ' stated.' *Wilde vs. Gibson*, 1 Cl. & Fin. N. S., 620; *Glascott vs. Lang*, " 2 Phill., 310; *Curson vs. Belwarthy*, 22 Eng. L. & Eq., 1; *Tilling-* " *hast vs. Champlin*, 4 Rhode Island, 173, 67 Amer. Dec., 510, in which " case the Court uses the following language: ' In almost all these " ' cases it will be found that the objection to relief was not that " ' the bill did not contain allegations sufficient to afford a basis for " ' the inferior or secondary relief upon which the plaintiff wished " ' to fall back, but that having mingled with those allegations impu- " ' tations of personal corruption or actual fraud, he had pointed " ' his bill only to relief upon this higher ground, and must, there- " ' fore, succeed upon that ground or not at all.' *Fisher vs. Boody*, " 1 Curt., 206, Fed. Cases, 4814; *Eyre vs. Potter*, 15 How., 42, in " which the Supreme Court of the United States cite with approval " the case of *Price vs. Berrington, supra.*

" The decree complained of will be reversed and the case will be " remanded with instructions to dismiss the bill."

Upon this decision the judgment of the said Circuit Court of Appeals was entered as follows:

" UNITED STATES CIRCUT COURT OF APPEALS, FOURTH CIRCUIT, No. 110.

" ROBERT B. DASHIELL, Appellant,
" vs.
" JAMES B. M. GROSVENOR and others, Appellees.

" Appeal from the Circuit Court of the United States for the District of Maryland.

" This cause came on to be heard on the transcript of the record " from the Circuit Court of the United States for the District of " Maryland, and was argued by counsel.

" On consideration whereof, it is now here ordered, adjudged and " decreed by this Court that the decree of the said Circuit Court " in this cause be, and the same is hereby, reversed, with costs; " and this cause is remanded to the Circuit Court of the United " States for the District of Maryland, at Baltimore, with instructions " to dismiss the bill, in conformity with the opinion and decree of " this Court. It is further ordered that the mandate of this Court " issue after the expiration of twenty days from the date hereof.

" Febuary 5, 1895.

" N. GOFF."

NINTH. A certified copy of the entire record of the said case in the said Circuit Court of Appeals—being numbered 110 in the said Court—is herewith furnished and hereto annexed as part of this application, in conformity with Rule 37 of this Honorable Court, relative to cases from Circuit Courts of Appeals.

TENTH. Your petitioners are advised and believe that the said judgment of the United States Court of Appeals in the said case is erroneous, and that this Honorable Court should require the said case to be certified to it for its review and determination, under and in conformity with the provisions of the sixth section of the Act of Congress, entitled "An act to establish circuit courts of appeals, " and to define and regulate in certain cases the jurisdiction of the " Courts of the United States, and for other purposes," approved March 3, 1891, the said case being made final in the said Circuit Court of Appeals by the said act.

ELEVENTH. Although it appeared in the record that the infringement of your petitioners' patent was devised by defendant Dashiell, and done under his authority by virtue of a license granted by him as the owner and patentee of the infringing device, and under an agreement for the payment of a royalty to him; and although the answer of said defendant denied the infringement and put in issue the validity of your petitioners' patent; and although the Circuit Court found against the defendant upon each of these defenses and gave judgment in favor of your petitioners in the usual form of judgments rendered in favor of complainants in suits for infringement in that Court; and although there were no parties to the record excepting your petitioners as complainants and the said Robert B. Dashiell as sole defendant, yet the Circuit Court of Appeals decided the case and reversed the decree of the Circuit Court on the ground that the suit was one against the United States; that the United States may, under the Constitution, make use of patented devices without the consent of the patentees, although there may be no provisions of law under which just compensation may be made to the owners of the patents; that the contending patentees should not be allowed to litigate the validity of their respective letters patent because an injunction against the defendant for his infringement will operate as a judgment against the United States, and that if your petitioners' invention is being used and infringed by those representing the United States "then the owners of the same can recover just compensation for such use and infringement from the Government by suit in the Court of Claims or by means of an appropriation for that purpose made by Congress on application made to that body."

TWELFTH. This decision of the Circuit Court of Appeals is in conflict with the previous decisions of this Honorable Court in the following particulars:

I. It was held by this Court in United States vs. Lee (106 U. S., 196), that "while acceding to the general proposition that in no Court can the United States be sued directly by original process as a defendant, there is abundant evidence in the decisions of the Court that the doctrine, if not absolutely limited to cases in which the United States are made defendants by name, is not permitted to interfere with the judicial enforcement of the established rights of

plaintiffs when the United States is not a defendant or a necessary party to the suit" (p. 207), and that the prior case of Carr vs. United States had decided "that the United States are not bound by a judgment to which they are not parties and that no officer of the Government can, by defending a suit against private persons, conclude the United States by the judgment" (p. 217).

II. It was held by this Court in Osborn vs. Bank of the United States (9 Wheat., 738), in Poindexter vs. Greenhow (114 U. S., 270), and in many other cases, that where an individual is sued in tort and sets up in his defense that he acted as an officer or agent of a State or of the Government, the Court is not ousted of jurisdiction, and the defendant to make out his defense must show that his authority was valid and sufficient in law.

III. It was held by this Court in United States vs. Burns (12 Wall., 246), in Cammeyer vs. Newton (94 U. S., 225), and in Langford vs. United States (101 U. S., 341), that the United States has ordinarily no greater right to use a patent without the consent of the patentee than a private individual has. And in Cammeyer vs. Newton it is said: "Public employment is no defense to the employee for having converted the private property of another to the public use without his consent and without just compensation. Private property, the Constitution provides, shall not be taken for public use without just compensation; and it is clear that that provision is as applicable to the Government as to individuals, except in cases of extreme necessity in time of war and of immediate and impending public danger."

IV. The taking of any part of the property of a patentee in the rights conferred by his patent, by the United States, without the consent of the patentee, is an exercise of the power of eminent domain, and may not be done, under the Fifth Amendment of the Constitution, and the decisions of this Court in the cases of Secombe vs. Railroad Company (23 Wall., 108), Kohl vs. United States (91 U. S., 367), United States vs. Jones (109 U. S., 513), and Cherokee Nation vs. Kansas Railway Co. (135 U. S., 641), excepting by express legislative authority, and with a "reasonable, certain and adequate provision for obtaining compensation" before the occupancy of the owner is disturbed. No such legislative authority or provision for compensation appears in the present case.

V. It was held by this Court, in Langford vs. United States (101 U. S., 341), that the United States was not liable to be sued in the Court of Claims for the torts of its officers or agents, or for compensation for property taken without recognition, or in denial of the title of the owners.

THIRTEENTH. Thus the decision of the Circuit Court of Appeals in the present case disregards salutary and important rules which had been settled by the decisions of this Honorable Court, and holds in effect that the executive officers of the United States may in time of peace and without the pressure or excuse of any overwhelming necessity, appropriate any property of any citizen to the use of the Government, without his consent, without any legislation authorizing its condemnation, without any judicial proceedings for its condemnation, and without any compensation other than such as the citizen may be able subsequently to obtain through an application to be addressed by him to the Congress; that the citizen may not sue the officer by whom his property is appropriated, because to do so is to sue the United States; and that where an individual of his own motion has devised an infringement of a patent, and in his own pecuniary interest has procured and licensed the Government to make and use it, reserving to himself a profit by way of royalty upon such manufacture and use, the owner of the patent thus infringed may not sue the infringer and litigate the question of infringement in the Circuit Courts of the United States, because of the inconvenience and embarrassment to which the Government might thereby be incidentally exposed.

FOURTEENTH. Said decision of the Circuit Court of Appeals thus presents questions of the utmost gravity and importance, affecting not only the owners of patents issued by the United States, but the owners of any and every kind of property within the United States, and affecting the constitutional rights of all citizens of the United States, and more especially the rights intended to be conferred and secured by the terms of the Fifth Amendment to the Constitution of the United States.

FIFTEENTH. That part of the decision of the Circuit Court of Appeals in which it is said that, inasmuch as your petitioners' bill of complaint for the infringement of a patent charges that such in-

fringement was fraudulently done, and inasmuch as it had been found that the infringement was only wrongful and not fraudulent, therefore, said bill could not be maintained—is not to be regarded as the real ground of the determination, because a dismissal upon that ground would be no bar to the filing of a new bill by your petitioners in the precise form of the present bill, with the allegations of fraud only omitted. But such new bill would be barred by the adjudication that such suit was, in effect, a suit against the United States, that the United States had lawfully appropriated your petitioners' property in the said letters patent, that the Fifth Amendment to the Constitution of the United States did not protect your petitioners against such taking, and that your petitioners could not litigate the question of the defendant's infringement because of the effect of such litigation upon the Government.

SIXTEENTH. Your petitioners, therefore, respectfully submit that the questions thus involved in and presented by the case of your petitioners should be authoritatively and finally adjudged by this Honorable Court upon and after a full presentation to the Court upon the merits of the same, both by reason of the extreme gravity and importance of said questions, and because it is the peculiar and preeminent province of this Honorable Court to finally determine all questions involving the construction or application of the Constitution of the United States.

WHEREFORE, your petitioners respectfully pray that a writ of *certiorari* may be issued out of and under the seal of this Court directed to the United States Circuit Court of Appeals for the Fourth Circuit, commanding the said Court to certify and send to this Court on a day certain to be therein designated, a full and complete transcript of the record and all proceedings of the said Circuit Court of Appeals in the said case therein entitled Robert B. Dashiell, appellant, versus James B. M. Grosvenor and others, appellees, No. 110, to the end that the said case may be reviewed and determined by this Court, as provided in Section 6 of the Act of Congress, entitled "An Act to establish Circuit Courts of Appeals, and to define and to regulate in certain cases the jurisdiction of the Courts of the United States, and for other purposes," approved March 3, 1891, or that your petitioners may have such other or further relief or remedy in the premises as to this Court may seem

appropriate and in conformity with the said act, and that the said judgment of the said Circuit Court of Appeals in the said case, and every part thereof, may be reversed by this Honorable Court.

And your petitioners will ever pray, &c.

JAMES B. M. GROSVENOR,
LAVINIA WILSON,
EDWARD H. LITCHFIELD,
SAMUEL SEABURY,
By WILLIAM G. WILSON,
Solicitor and of Counsel for Petitioners.

WILLIAM A. JENNER,
WILLIAM G. WILSON,
Of Counsel.

SOUTHERN DISTRICT OF NEW YORK, }
City and County of New York, } ss.:

JAMES B. M. GROSVENOR, being duly sworn, says that he is one of the petitioners in the foregoing petition; that he has read the foregoing petition and knows the contents thereof; and that the same is true of his own knowledge, except as to the matters therein stated upon information and belief, and as to those matters he believes it to be true.

J. B. M. GROSVENOR.

Subscribed and sworn to before me this 21st day of February, A. D. 1895.

WM. E. ZABRISKIE,
[L. S.] Notary Public (1),
N. Y. Co.

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Office Supreme Court U. S.
FILED.
MAR 25 1895
JAMES H. McKENNEY,
CLERK.

IN THE

Supreme Court of the United States.

OCTOBER TERM, 1894.

EX PARTE JAMES B. M. GROSVENOR ET AL., PETITIONERS.

The undersigned, having under appointment by the Attorney General represented Robert B. Dashiell in the cause to which the present petition for a certiorari applies, and having been notified of such petition by the learned counsel for Grosvenor and others,—in order to exclude any conclusion from silence thereabouts, begs leave to submit as follows:

1. The original bill of the petitioners, as the record accompanying the petition will show,—alleged that Samuel Seabury, one of the petitioners, offered an invention made by himself, of a cannon-breech-loading-mechanism, to William M. Folger, then Chief of Ordnance, U. S. N., for purchase by the United States, at a certain price; and having been favorably received, thereupon took certain further steps, suggested by Folger, in furtherance of his object:

2. That Folger and Dashiell, the latter being then an ensign in the Navy, availing themselves of information derived from those *steps*, devised a fraud whereby the invention in question should be, and was, made use of by the United States, at the instance, and to the profit, of Dashiell.

FILED.
MAY 6 1895
JAMES H. McKENNEY,
CLERK.

IN THE

Supreme Court of the United States

OCTOBER TERM, 1894.

No. ~~958.~~ 569

JAMES B. M. GROSVENOR ET AL., APPELLANTS,

vs.

ROBERT B. DASHIELL.

MOTION TO ADVANCE.

This case has come up by writ of certiorari, under an order at this term, to review a decree made by the Circuit Court of Appeals for the Fourth Circuit.

As shown by the petition for that writ, it involves an alleged infringement of a patent which covers breech-opening mechanism for rapid-fire cannon. Substantially that mechanism is therefore valuable only for the purposes of the Government. The device supposed to infringe has been adopted by the United States, and has been employed in the manufacture of many cannon that are at present in use in ships of the Navy, and it is being applied to many other cannon now being constructed at the Washington Navy

Yard. For that reason direction of the defense in the case below has, at the instance of the Secretary of the Navy, been taken by the Attorney General.

In view of obvious complications necessarily arising therefrom to important public business, the undersigned is directed by the Attorney General to move that it be advanced, to be heard at such early day during the next term as may be convenient to the court.

S. F. PHILLIPS,
Special United States Attorney, &c.

162-433

CERTIFICATE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1892.

No. 778.

WILLIAM GRAVER, APPELLANT,

vs.

BENJAMIN C. FAURIOT.

ON A CERTIFICATE FROM THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SEVENTH CIRCUIT.

FILED OCTOBER 10, 1892.

(16,069.)